KIRKLAND & ELLIS LLP

1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
United States

+1 202 389 5000

www.kirkland.com

Paul F. Brinkman, P.C.
To Call Writer Directly:
+1 202 389 5033
paul.brinkman@kirkland.com

Facsimile:
+1 202 389 5200

May 26, 2026

By EDIS Filing

The Honorable Lisa R. Barton
Secretary to the Commission
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, D.C. 20436

Re: *In the Matter of Certain Heavy Machinery and Components Thereof*, Inv. No. 337-TA-___

Dear Secretary Barton:

In accordance with the Commission's filing procedures, Complainant Caterpillar Inc. submits the following documents in support of its request that the Commission commence an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, concerning certain heavy machinery, and components thereof:

1. One (1) electronic copy of the Complainant's verified Complaint pursuant to Commission Rule 210.8(a)(1)(i).

2. One (1) electronic copy of the public exhibits to the Complaint, pursuant to Commission Rules 210.8(a)(1)(i) and 201.12(a)(9), including:

    (i) One (1) electronic copy of United States Patent Nos. 8,515,637, 9,133,837, 9,347,554 and 10,059,341 (collectively, the "Asserted Patents"), listed as Exhibits 1–4 to the Complaint, pursuant to Commission Rule 210.12(a)(9)(i), and

(ii) One (1) electronic copy of the assignments for the Asserted Patents, listed as Exhibits 5–8 to the Complaint, pursuant to Commission Rule 210.12(a)(9)(ii).[1]

3. One (1) electronic copy of confidential Exhibits 18, 62–64, 72, 75–78, 86–88, 92–95, and 97–100 to the Complaint, pursuant to Commission Rules 201.6(c) and 210.8(a)(1)(i).

4. One (1) electronic copy of non-confidential versions of each of the Confidential Exhibits 18, 62–64, and 72 with the confidential business information redacted, pursuant to Commission Rules 201.6(b)(3)(v) and 210.8(a)(1)(i). Confidential Exhibits 75–78, 86–88, 92–95, and 97–100 are confidential in their entirety and only slip sheets are provided for non-confidential versions of these exhibits.

5. One (1) electronic copy of the prosecution histories for each of the Asserted Patents, included as Appendices A–D to the Complaint, pursuant to Commission Rule 210.12(c)(1).[2]

6. A letter and certification requesting confidential treatment for the information contained in confidential Exhibits 18, 62–64, 72, 75–78, 86–88, 92–95, and 97–100 to the Complaint, pursuant to Commission Rules 201.6(b) and 210.5(d).

7. A Statement on the Public Interest regarding the remedial orders sought by Complainant in the Complaint, pursuant to Commission Rule 210.8(b).

Physical exhibits P1–P4 to the Complaint will be provided separately to the Secretary's Office with slip sheets.

Paper copies of the Complaint, non-confidential exhibits in electronic form on CD-ROMs for each proposed respondent, confidential exhibits in electronic form on CD-ROMs for each proposed respondent's counsel after subscribing to the protective order, and paper copies of the Complaint for the government of each foreign country in which a proposed respondent is located

---

[1] Complainant is providing non-certified copies of the Asserted Patents and assignments for each of the Asserted Patents at this time. Certified copies have been ordered and will be submitted once available.

[2] Complainant is providing non-certified copies of the prosecution histories for each of the Asserted Patents at this time. Certified copies have been ordered and will be submitted once available.

will be delivered to the Secretary by the next business day pursuant to Commission Rule 210.8(a)(i).

Please contact me with any questions regarding this submission. Thank you for your attention to this matter.

Respectfully,

/s/ Paul F. Brinkman, P.C.

Paul F. Brinkman, P.C.

Counsel for Complainant Caterpillar Inc.

KIRKLAND & ELLIS LLP

1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
United States

+1 202 389 5000

www.kirkland.com

Paul F. Brinkman, P.C.
To Call Writer Directly:
+1 202 389 5033
paul.brinkman@kirkland.com

Facsimile:
+1 202 389 5200

REQUEST FOR CONFIDENTIAL TREATMENT

May 26, 2026

By Electronic Delivery

The Honorable Lisa R. Barton
Secretary to the Commission
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436

Re: *In the Matter of Certain Heavy Machinery and Components Thereof.*, Inv. No. 337-TA-___

Dear Secretary Barton:

Pursuant to Commission Rules 201.6(b) and 210.5(d), Complainant Caterpillar Inc. respectfully requests confidential treatment of certain confidential business information contained in Confidential Exhibits 18, 62–64, 72, 75–78, 86–88, 92–95, and 97–100 to the Complaint filed contemporaneously with this letter.

The information in these confidential exhibits consists of proprietary commercial information, including at least proprietary financial information regarding Complainant's domestic investments and business practices, as well as proprietary information relating to Complainant's technical processes. A non-confidential version of Confidential Exhibits 18, 62–64, and 72 with the confidential business information redacted is being filed concurrently. A non-confidential version of Confidential Exhibits 75–78, 86–88, 92–95, and 97–100 cannot be prepared as these exhibits consist entirely of confidential business information. Accordingly, Complainant is filing non-confidential versions of Exhibits 75–78, 86–88, 92–95, and 97–100 that are redacted in their entirety.

I certify that the proprietary information described herein qualifies as confidential business information under Commission Rule 210.6 because substantially identical information is not available to the public; because the disclosure of this information would cause substantial competitive harm to Complainant, its business partners, and/or customers; and because the disclosure of the information would likely impede the Commission's efforts and ability to obtain similar information in the future.

Please contact me with any questions regarding this submission. Thank you for your attention to this matter.

Respectfully,

/s/ Paul F. Brinkman, P.C.

Paul F. Brinkman, P.C.

Counsel for Complainant Caterpillar Inc.

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of **CERTAIN HEAVY MACHINERY AND COMPONENTS THEREOF**	**Investigation No. 337-TA-____**

COMPLAINANT'S STATEMENT ON THE PUBLIC INTEREST

Pursuant to Commission Rule 210.8(b), Complainant Caterpillar Inc. ("Caterpillar") submits this Statement on the Public Interest regarding the remedial orders it seeks against Proposed Respondents Doosan Bobcat Inc., Doosan Bobcat North America, Inc., Doosan Bobcat Mexico Monterrey, S. de R.L. de C.V., Doosan Bobcat EMEA S.R.O., Doosan Bobcat France S.A.S., and Doosan Bobcat India Private Ltd. (collectively, "Doosan" or "Respondents"). Caterpillar seeks a permanent limited exclusion order under 19 U.S.C. § 1337(d) barring from entry into the United States certain heavy machinery and components thereof (collectively, the "Accused Products"), that directly or indirectly infringe, either literally and/or under the doctrine of equivalents, one or more of the following valid and enforceable claims of United States Patent Nos. 8,515,637; 9,133,837; 9,347,554; and 10,059,341 (collectively, the "Asserted Patents"). Caterpillar also seeks a permanent cease and desist order prohibiting Respondents, or their parents, subsidiaries, related companies, other affiliates, or agents, from conducting any of the following activities in the United States: importing, selling, marketing, advertising, distributing, offering for sale, transferring (except for exportation), soliciting United States agents or distributors, or aiding and abetting other entities in the importation, sale for importation, sale after importation, transfer (except for exportation), or distributing certain heavy machinery and components thereof that infringe one or more claims of the Asserted Patents.

The proposed remedies will have no meaningful impact on the public health, safety, or welfare as the Commission has previously construed them, nor will they have a meaningful impact on competitive conditions in the United States economy or United States consumers. There is no need for the Commission to instruct the presiding administrative law judge to take evidence and issue a recommended determination on the public interest. Moreover, if Doosan's Accused Products are excluded from importation, then Caterpillar's directly competing products, and, to the extent necessary, other third parties supplying similar products, will remain available in place of the Accused Products subject to the requested remedial orders.

I. USE OF THE ACCUSED PRODUCTS IN THE UNITED STATES

The Accused Products are certain heavy machinery and components thereof, such as telehandlers, excavators, and loaders. This heavy machinery is used in construction, infrastructure, mining, and agricultural projects, or for other similar purposes.

II. THE REQUESTED REMEDIAL ORDERS DO NOT RAISE ANY APPLICABLE CONCERNS RELATING TO PUBLIC HEALTH, SAFETY, OR WELFARE

Issuance of a limited exclusion order and a cease and desist order against Doosan will have no adverse impact on the public health, safety, or welfare. "[T]he Commission has found public interest considerations to outweigh the need for injunctive relief in protecting intellectual property rights found to have been violated under Section 337 in only three investigations, all of which were decided prior to the 1988 legislative amendment [to Section 337]." *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1360 (Fed. Cir. 2010). The products involved in those exceptional investigations were linked to critical public health and safety concerns, namely, the ability of vehicle manufacturers to meet fuel economy standards during the 1980s energy crisis, materials used for nuclear research during the Cold War, and specialized hospital beds for burn victims. *See Certain Automatic Crankpin Grinders*, Inv. No. 337-TA-60 (December 17, 1979); *Certain*

Inclined-Fluid Acceleration Tubes and Components Thereof, Inv. No. 337-TA-67 (December 29, 1980); *Certain Fluidized Supporting Apparatus*, Inv. No. 337-TA-182/188 (October 5, 1984). Exclusion of the Accused Products in this investigation does not raise any of the same concerns.

III. CATERPILLAR MANUFACTURES DIRECTLY COMPETITIVE ARTICLES, AND THIRD PARTIES MAKE OTHER ARTICLES THAT WILL CONTINUE TO BE AVAILABLE IF THE ACCUSED PRODUCTS ARE EXCLUDED

Caterpillar has sufficient capacity to make up for any shortfall due to the requested relief—indeed, Caterpillar employs over 51,600 people in the United States and maintains manufacturing facilities in East Peoria and Decatur, Illinois; Athens, Georgia; Clayton and Sanford, North Carolina; North Little Rock, Arkansas; and Victoria, Texas, among other locations. Numerous third-party manufacturers of similar heavy machinery are also available to fill any gaps.[1] Caterpillar and these third parties supply, for example, directly competitive telehandlers, excavators, loaders, and components thereof to the U.S. that can replace the infringing Accused Products once they are excluded. Caterpillar is presently unaware of any manufacturing constraints in the industry that would impede the supply of replacement products.

IV. THE REQUESTED REMEDIAL ORDERS WILL NOT ADVERSELY IMPACT U.S. CONSUMERS

The requested exclusion and cease and desist orders will not adversely impact consumers in the United States. Excluding Doosan's Accused Products will allow Caterpillar and other companies to lawfully provide heavy machinery and components thereof to U.S. consumers. Moreover, the public interest favors the protection of intellectual property rights in the United

[1] *See, e.g.*, https://www.equipmentworld.com/construction-equipment/compactequipment/article/15768178/2025-compact-construction-equipment-buyers-guide (listing, *e.g.*, Hitachi, John Deere, Komatsu, and Volvo as suppliers of similar equipment); https://www.equipmentworld.com/construction-equipment/heavy-equipment/article/15773423/2025-2026-heavy-equipment-buyers-guide-download-the-free-report (listing, *e.g.*, Hitachi, John Deere, Komatsu, and Volvo as suppliers of similar equipment).

States. *See Certain Two-Handle Centerset Faucets & Escutcheons, & Components Thereof*, Inv. No. 337-TA-422, Comm'n Op. at 9 (June 19, 2000); *Certain Hardware Logic Emulation Sys. & Components Thereof*, Inv. No. 337-TA-383, Comm'n Op. at 8–9 (Oct. 15, 1996). Excluding Doosan's infringing Accused Products would thus serve the public interest by vindicating Caterpillar's intellectual property rights.

V. CONCLUSION

The requested remedial orders raise no critical public interest concerns. An adequate supply of alternatives to the Accused Products is available, from Caterpillar and numerous third-party suppliers. Accordingly, the Commission need not burden the presiding administrative law judge with gathering and evaluating evidence regarding the public interest factors. The Commission should issue the requested remedial orders if it determines that Doosan has violated Section 337.

Dated: May 26, 2026

Respectfully submitted,

/s/ Paul F. Brinkman, P.C.

Paul F. Brinkman, P.C.
Gregg F. LoCascio, P.C.
KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, NW
Washington, DC 20004
Tel.: (202) 389-5000
Fax: (202) 389-5200

Ryan Kane, P.C.
Mark C. McLennan
N. Kaye Horstman
Mara L. Greenberg
Annie Chan
Brenda Lim
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
Tel.: (212) 446-4800
Fax: (212) 446-4900

Michael DelRossi
KIRKLAND & ELLIS LLP
401 W 4th Street
Austin, Texas 78701
Tel.: (512) 678-9100
Fax: (512) 678-9101

George Manley
KIRKLAND & ELLIS LLP
200 Clarendon Street
Boston, MA 02116
Tel.: (617) 385-7500
Fax: (617) 385-7501

Email: paul.brinkman@kirkland.com

Counsel for Complainant Caterpillar Inc.

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of **CERTAIN HEAVY MACHINERY AND COMPONENTS THEREOF**	**Investigation No. 337-TA-____**

COMPLAINT UNDER SECTION 337
OF THE TARIFF ACT OF 1930, AS AMENDED

COMPLAINANT

Caterpillar Inc.
5205 N. O'Connor Blvd., Suite 100
Irving, TX 75039
Tel.: (972) 891-7700

COUNSEL FOR COMPLAINANT

Paul F. Brinkman, P.C.
Gregg F. LoCascio, P.C.
KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Tel.: (202) 389-5000
Fax: (202) 389-5200

Ryan Kane, P.C.
Mark C. McLennan
N. Kaye Horstman
Mara L. Greenberg
Annie Chan
Brenda Lim
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
Tel.: (212) 446-4800
Fax: (212) 446-4900

PROPOSED RESPONDENTS

Doosan Bobcat Inc.
Bundang Doosan Tower
155 Jeongjail-ro
Bundang-gu, Seongnam-si
Gyeonggi-do 13557
REPUBLIC OF KOREA

Doosan Bobcat North America, Inc.
250 East Beaton Dr.
West Fargo, ND 58078

Doosan Bobcat Mexico Monterrey, S. de R.L. de C.V.
Avenida Internacional #305
Parque Industrial Interpuerto Monterrey
65500 Salinas Victoria, Nuevo León
MEXICO

Doosan Bobcat EMEA S.R.O.
U Kodetky 1810
263 12 Dobříš
CZECH REPUBLIC

Doosan Bobcat France S.A.S.
55 Rue du Chêne Vert
44160 Pontchâteau
FRANCE

Michael DelRossi
KIRKLAND & ELLIS LLP
401 West 4th Street
Austin, Texas 78701
Tel.: (512) 678-9100
Fax: (512) 678-9101

George Manley
KIRKLAND & ELLIS LLP
200 Clarendon Street
Boston, MA 02116
Tel.: (617) 385-7500
Fax: (617) 385-7501

Email: paul.brinkman@kirkland.com

Doosan Bobcat India Private Ltd.
6th Floor, HTC Towers
41 Grand Southern Trunk Road
Guindy, Chennai 600032
INDIA

TABLE OF CONTENTS

EXHIBITS

Exhibit	Description
1	U.S. Patent No. 8,515,637
2	U.S. Patent No. 9,133,837
3	U.S. Patent No. 9,347,554
4	U.S. Patent No. 10,059,341
5	Assignments for U.S. Patent No. 8,515,637
6	Assignments for U.S. Patent No. 9,133,837
7	Assignments for U.S. Patent No. 9,347,554
8	Assignments for U.S. Patent No. 10,059,341
9	Doosan, Global Network; available at https://www.doosan.com/en/network/
10	Wall Street Journal, "Doosan's Record Takeover Puts Korea in Deals Race"
11	Caterpillar, 930 Small Wheel Loader; available at https://www.cat.com/en_US/products/new/equipment/wheel-loaders/small-wheel-loaders/123460.html
12	Doosan, T86 Compact Track Loader; available at https://www.bobcat.com/na/en/equipment/loaders/compact-track-loaders/t86
13	Doosan, TL723 Telehandler; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl723
14	Doosan, Adaptive Performance, Features & Benefits: Horsepower Management; available at https://www.bobcat.com/na/en/equipment/loaders/compact-track-loaders/features/productivity/performance#adaptive-control
15	Caterpillar, Systems Operation Manual – 924, 926, 930, and 938 Wheel Loaders Machine Systems (M0164023-3) (Excerpted)
16	Doosan, E145 Large Excavator; available at https://www.bobcat.com/na/en/equipment/excavators/large-excavators/e145
17	Operation and Maintenance Manual – E145 Excavator (Excerpted)
18	Confidential Domestic Industry Claim Chart for U.S. Patent No. 9,347,554
19	Caterpillar, 255 Compact Tracker Loader; available at https://www.cat.com/en_US/products/new/equipment/skid-steer-and-compact-track-loaders/compact-track-loaders/122740.html
20	Doosan, TL519 Telehandler; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl519
21	Caterpillar, 982 XE Medium Wheel Loader; available at https://www.cat.com/en_US/products/new/equipment/wheel-loaders/medium-wheel-loaders/130322.html
22	Caterpillar, 982 XE Medium Wheel Loader Brochure

Exhibit	Description
23	Doosan, TL923 Telehandler; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl923
24	WO 2012/087564
25	Japanese Patent Application JP2014-505839
26	Brazilian Patent Application BR112013016180
27	German Patent Application DE112011104504
28	WO 2009/132180
29	Chinese Patent Application CN102016187
30	German Patent Application DE102017113253
31	Doosan, Global Locations; available at https://www.doosanbobcat.com/en/about/global
32	Doosan Press Release, "Bobcat Celebrates 60 years of Pontchâteau, France Factory"; available at https://www.bobcat.com/eu/en/company/news-and-media/press-release/bobcat-celebrates-60-years-of-pontchateau-france-factory
33	Doosan Bobcat Company Profile
34	TL519 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/256240547/2026-bobcat-tl519-telehandlers-lifts
35	TL619 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/252375695/2024-bobcat-tl619-telehandlers-lifts
36	TL623 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/252260727/2025-bobcat-tl623-telehandlers-lifts
37	TL723 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/254585199/2025-bobcat-tl723-telehandlers-lifts
38	TL923 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/251830163/2026-bobcat-tl923-telehandlers-lifts
39	E145 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/254613731/2023-bobcat-e145-crawler-excavators
40	E165 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/240857301/2023-bobcat-e165-crawler-excavators
41	Doosan, Bobcat Dobříš Webiste; available at https://bobcatdobris.cz/en/
42	Doosan Press Release, "Doosan Bobcat to Build a New Plant in Mexico to Meet the Increasing Demand in the North American Market"; available at https://www.doosan.com/en/media-center/press-release_view?id=20172594
43	Doosan Bobcat Latin America, Worldwide Locations; available at https://www.bobcat.com/la/en/company/locations

Exhibit	Description
44	Images of Doosan Mexico Facility (Google Maps)
45	T740 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/253568789/2023-bobcat-t740-track-skid-steers
46	T76 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/240256327/2024-bobcat-t76-track-skid-steers
47	T770 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/252380921/2025-bobcat-t770-track-skid-steers
48	T86 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/251490921/2024-bobcat-t86-track-skid-steers
49	S76 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/252257887/2025-bobcat-s76-wheel-skid-steers
50	S770 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/251449289/2024-bobcat-s770-wheel-skid-steers
51	S86 Machinery Trader Listing; available at https://www.machinerytrader.com/listing/for-sale/250916125/2024-bobcat-s86-wheel-skid-steers
52	Infringement Claim Chart for U.S. Patent No. 8,515,637
53	Infringement Claim Chart for U.S. Patent No. 9,133,837
54	Infringement Claim Chart for U.S. Patent No. 9,347,554
55	Infringement Claim Chart for U.S. Patent No. 10,059,341
56	Doosan, Competitive Comparison Test Overview; available at https://web.archive.org/web/20170112060500/http://www.bobcat.com/compare-brands/advantage
57	Doosan, Bobcat Advantage; available at https://web.archive.org/web/20170101071824/http://www.bobcat.com/compare-brands/loaders?alias=hydraulic-performance
58	Doosan, Bobcat Advantage Source File; available at https://netdrive.bobcat.com/advantage/excavators/index.html?video=TravelSpeed
59	Operation and Maintenance Manual – TL923 Telehandler (Excerpted)
60	Operation and Maintenance Manual – E245 Excavator (Excerpted)
61	Doosan, Telehandlers Brochure – TL519, TL623, TL723, TL923
62	Confidential Domestic Industry Claim Chart for U.S. Patent No. 8,515,637
63	Confidential Domestic Industry Claim Chart for U.S. Patent No. 9,133,837
64	Confidential Domestic Industry Claim Chart for U.S. Patent No. 10,059,341
65	Caterpillar Inc.'s Comments Relating to the Operation of the Agreement Between the United States of America, the United Mexican States, and Canada

Exhibit	Description
66	Caterpillar Inc.'s 2025 Form 10-K (Excerpted)
67	Caterpillar Inc. Press Release, "Caterpillar Invests in U.S. Manufacturing and Future Workforce Skills Training"; available at https://www.caterpillar.com/en/news/corporate-press-releases/h/cat-invest-future-workforce.html
68	Construction News, "Caterpillar's North Little Rock, Arkansas, Facility Celebrates Production Milestones"; available at https://acppubs.com/CN/article/F0614C8A-caterpillar-s-north-little-rock-arkansas-facility-celebrates-production-milestones
69	Caterpillar, 930 Small Wheel Loader; available at https://www.warrencat.com/new/equipment/wheel-loaders/small-wheel-loaders/930-small-wheel-loader/
70	Caterpillar, 982 XE Medium Wheel Loader; available at https://www.westernstatescat.com/new-cat-equipment/wheel-loaders/982-xe-wheel-loader/
71	Caterpillar Inc. Press Release, "New Cat® 255 and 265 Compact Track Loaders Deliver Industry Leading Lift and Tilt Breakout Forces, Significantly Increase Torque"; available at https://www.cat.com/en_US/news/machine-press-releases/new-cat-255-and-265-compact-track-loaders-deliver-industry-leading-lift-and-tilt-breakout-forces-ssignificantly-increase-torque.html#multimedia-B2YD4j4polRFDHA-poster
72	Confidential Declaration of David Falcione
73	Service Manual – E145 Excavator (Excerpted)
74	Doosan Press Release, "Bobcat Company Expands Its Excavator Lineup with the New E165"; available at: https://www.bobcat.com/na/en/company/news-media/press-releases/bobcat-launches-new-e165-large-excavator
75	Confidential Schematic – 255 Compact Track Loader
76	Confidential Excerpt of Block Diagram of Control System
77	Confidential Guide of Control System
78	Confidential Excerpt of Block Diagram of Control System Inputs
79	Operation and Maintenance Manual – TL519 Telehandler (Excerpted)
80	Doosan, Drive Controller for Versahandler, 7273601; available at: https://shop.bobcat.com/drive-controller-for-versahandler-7273601?srsltid=AfmBOorSDO0kAp9O9JYGLtA1x5dD71YfePidE7i5wMrdmjusRMDSGDTz
81	Doosan, Engine ECU For Bobcat Equipment, 7378207; available at https://shop.bobcat.com/engine-ecu-for-bobcat-equipment-7378207
82	Doosan, Telehandlers: Controls and Displays: https://www.bobcat.com/na/en/equipment/telehandlers/r-series/instrumentation
83	Service Manual – TL519 Telehandler (Excerpted)

Exhibit	Description
84	Systems Operation Testing and Adjusting – 250 and 260 Skid Steer Loaders and 255 and 265 Compact Track Loaders Machine Systems (Excerpted)
85	Systems Operation Troubleshooting Testing and Adjusting – All D-Series, D2-Series, D3-Series Compact Track Loaders, Multi Terrain Loaders, and Skid Steer Loaders Machine Electronic Control Systems (Excerpted)
86	Confidential Excerpt of Block Diagram of Shift Control System
87	Confidential Excerpt of Block Diagram of Shift Control System Logic
88	Confidential Excerpt of Flow Chart of Shift Control System
89	Service Manual – TL923 Telehandler (Excerpted)
90	Doosan, Operator Controls & Controllability; available at: https://www.bobcat.com/na/en/equipment/loaders/compact-track-loaders/features/operator-experience/controls
91	Service Manual – T86 Compact Track Loader (Excerpted)
92	Confidential Caterpillar Hydrostatic Control Presentation
93	Confidential Excerpt of Caterpillar Block Diagram of Hydrostatic Power Management Calculations
94	Confidential Excerpt of Caterpillar Block Diagram of Hydrostatic Power Management
95	Confidential Caterpillar Diagram of Hydrostatic Control
96	Operation and Maintenance Manual – 966 XE, 972 XE, 980 XE, and 982 XE Medium Wheel Loaders (M0099989-07) (Excerpted)
97	Confidential Excerpt of Caterpillar Diagram of Desired Engine Speed
98	Confidential Excerpt of Caterpillar Diagram of Rimpull
99	Confidential Excerpt of Caterpillar Diagram of Rimpull
100	Confidential Excerpt of Caterpillar Block Diagram of Control System Configuration

PHYSICAL EXHIBITS

Physical Exhibit	Description
P1	Bobcat Joystick Series: Horsepower Management; available at https://www.youtube.com/watch?v=Bd_G86HoYaI
P2	Invest Monterrey Video; available at https://www.instagram.com/reel/DXvBjgit-of/
P3	Cab Layout: Bobcat vs. Other Loader Brands; available at https://www.youtube.com/watch?v=MgE7Uojz460
P4	New Bobcat Advantage: Bobcat vs. Other Excavator Brands; available at https://www.youtube.com/watch?v=7D6V6JvBKBM

APPENDICES

Appendix	Description
A	Prosecution History of U.S. Patent No. 8,515,637
B	Prosecution History of U.S. Patent No. 9,133,837
C	Prosecution History of U.S. Patent No. 9,347,554
D	Prosecution History of U.S. Patent No. 10,059,341

I. INTRODUCTION

1. Caterpillar Inc. ("Caterpillar" or "Complainant") requests that the United States International Trade Commission commence an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, based on the unlawful importation into the United States, the sale for importation, and the sale within the United States after importation of certain heavy machinery and components thereof (collectively, "the Accused Products"), that directly or indirectly infringe, either literally and/or under the doctrine of equivalents, one or more of the following valid and enforceable claims (collectively, the "Asserted Claims") of United States Patent Nos. 8,515,637; 9,133,837; 9,347,554; and 10,059,341 (collectively, "the Asserted Patents") owned by Caterpillar:

Asserted Patents	Asserted Claims (Independent Claim(s) Bolded)
U.S. Patent No. 8,515,637 (the "'637 Patent")	**1**, 2–4, **12,** 13–14, **17,** 18
U.S. Patent No. 9,133,837 (the "'837 Patent")	**1**, 4–5, 7, 9–10, **11**, 12–14, **15**, 16–17
U.S. Patent No. 9,347,554 (the "'554 Patent")	**1**, 2–6, **7**, 8–11
U.S. Patent No. 10,059,341 (the "'341 Patent")	**1**, 2–4

2. Exhibits 1–4 are copies of the Asserted Patents. Exhibits 5–8 are copies of the assignments relating to the Asserted Patents. Caterpillar owns the Asserted Patents, including the right to sue for infringement.[1]

3. The Proposed Respondents are Doosan Bobcat Inc., Doosan Bobcat North America, Inc., Doosan Bobcat Mexico Monterrey, S. de R.L. de C.V., Doosan Bobcat EMEA S.R.O., Doosan Bobcat France S.A.S., and Doosan Bobcat India Private Ltd. (collectively, "Doosan" or "Respondents"). Doosan has engaged in unfair acts in violation of Section 337

[1] Complainant has ordered but not yet received certified copies of the patents, file histories, and assignments for the Asserted Patents from the United States Patent and Trademark Office. Complainant will provide the certified copies upon receipt.

through and in connection with its unlicensed importation into the United States, sale for importation into the United States, and/or its sale within the United States after importation of the Accused Products.

4. A domestic industry exists in the United States relating to articles protected by the Asserted Patents. *See* 19 U.S.C. § 1337(a)(2), (3). The domestic industry includes Caterpillar's significant domestic investments in plant and equipment and significant domestic employment of labor and capital relating to Caterpillar's products protected by the Asserted Patents, and substantial domestic investment in exploiting the inventions claimed in the Asserted Patents, including through engineering, research, and development investments.

5. Caterpillar seeks a permanent limited exclusion order barring from entry into the United States the infringing Accused Products that are made abroad, sold for importation, imported, and/or sold in the United States after importation by or on behalf of Doosan. *See* 19 U.S.C. § 1337(d). Caterpillar also seeks a permanent cease-and-desist order prohibiting Doosan from importing, selling, marketing, advertising, distributing, offering for sale, transferring (except for exportation), soliciting United States agents or distributors, or aiding and abetting other entities in the importation, sale for importation, sale after importation, transfer (except for exportation), or distribution of the infringing Accused Products. *See id.* § 1337(f).

6. Further, Caterpillar requests that the Commission impose a bond upon Doosan's importation or sale of infringing Accused Products during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j) to prevent further injury to Caterpillar's domestic industry.

II. THE PARTIES

A. Complainant Caterpillar Inc.

7. Caterpillar Inc. is a corporation organized and existing under the laws of the State of Delaware with a principal place of business at 5205 N. O'Connor Blvd., Suite 100, Irving, TX 75039.

8. Caterpillar is one of the world's most respected manufacturers of construction and earthmoving equipment. For over a century, Caterpillar has built a reputation for engineering excellence, reliability, and technological innovation in heavy machinery, including loaders, dozers, compact equipment, and advanced machine control systems. Since its formation in 1925 through the merger of the Holt Manufacturing Company and the C.L. Best Tractor Company, Caterpillar has consistently driven the evolution of modern construction equipment. Customers worldwide recognize the "CAT" brand as synonymous with durability, performance, and engineering excellence.

9. For 100 years, Caterpillar has driven innovation that helps build and power American infrastructure. Caterpillar machines are relied upon worldwide to complete some of the most demanding construction and infrastructure projects ever undertaken. Caterpillar equipment was used in projects such as the construction of the Hoover Dam, the Golden Gate Bridge, and the Panama Canal expansion, as well as countless highway, energy, mining, and infrastructure developments around the globe. Contractors and equipment operators routinely select Caterpillar machines because of their reputation for reliability and the support provided through Caterpillar's global dealer network spanning more than 190 countries. Customers depend on Caterpillar's products to build and strengthen communities and create jobs across the country.

10. Caterpillar was founded within a strong culture of innovation shaped by C.L. Best and prolific inventor Benjamin Holt, who secured a patent for a crawler-type tractor using

continuous tracks ("caterpillar tracks") in 1907, issued as U.S. Patent No. 874,008, and held more than 45 patents by the time Caterpillar was formed. Shortly after its formation, Caterpillar formalized this commitment to innovation by establishing its first research and design laboratory in the 1920s to develop diesel engines for its machines. Since then, Caterpillar has consistently invested heavily in research and development, resulting in a substantial portfolio of intellectual property. Those sustained investments have enabled Caterpillar to drive and maintain technological innovation for more than a century to solve its customers' toughest challenges and are a critical reason why the Caterpillar brand is widely associated with reliability, durability, and high performance in demanding environments. Today, Caterpillar holds thousands of patents relating to heavy equipment technologies, including systems for controlling implements, coordinating hydraulic power distribution, and optimizing machine performance during loader operations. Caterpillar makes, uses, offers for sale, and/or sells products that practice and/or embody the Asserted Patents.

11. Caterpillar has invested more than $20 billion in research and development over the past decade—roughly 75% of it in the United States—producing a substantial and growing portfolio of intellectual property across its equipment lines. Caterpillar invests heavily in research and development to advance the next generation of heavy equipment—from intelligent machine control systems to advanced hydraulic architectures, connected equipment platforms, and autonomous machinery—ensuring that Caterpillar remains at the forefront of innovation in the heavy equipment industry.

12. The Asserted Patents address operational challenges that confront heavy machinery such as loaders, excavators, and telehandlers: engines can stall or lose power, shifting can cause jarring or jerky motion, and machines may consume more fuel than the job actually requires.

Certain embodiments of the Asserted Patents address these and other challenges through control systems that, among other things, can manage power and motion in the machine. These control systems form, among other things, an intelligent interface between operator inputs and the machine's powertrain, which dynamically manages the machine's response based on working conditions.

13. The '837 Patent provides, in part, an electronic hydraulic pump control that accounts for engine limits, and the '637 Patent provides, in part, a transmission control to keep the engine load within a desired range. For example, certain embodiments of the '637 and/or '837 Patents relate to systems that may adjust how much load the transmission or hydraulic pump places on the engine, which helps prevent engine overload or stalling, even when the operator is taking on an intensive job.

14. Certain embodiments of the '554 Patent provide for smooth drive control, and specifically a system that can coordinate adjustments to pumps and motors, allowing the operator to accelerate and decelerate more smoothly, without the sudden lurches or jerks that can negatively impact machine operation.

15. And certain embodiments of the '341 Patent provide an advanced economy mode, through a system that can modulate both engine speed and transmission output based on factors including ground speed and engine load, which helps to make fuel go further, while still preserving the ability to deliver power for each job.

16. From the operator's seat, those systems of the Asserted Patents operate to ensure the machine works more reliably, rides more smoothly, and runs more efficiently—allowing the operator to focus on the job at hand. Collectively, these inventions represent a decade of innovation by Caterpillar engineers, reflecting the company's sustained investment in developing intelligent

control systems that improve the daily working experience of machine operators in the U.S. and around the world.

Smart Efficiency. Rugged Results.
The Cat® 982 XE Wheel Loader is engineered to crush downtime and fuel costs in one powerful package. Its advanced continuously variable transmission delivers seamless power and high rimpull for smooth, responsive control. Advanced technology and deep system integration push efficiency to the max, while extended service intervals and enhanced safety features keep crews moving confidently. From heavy construction to high-volume mining, the 982 XE is the machine that turns hard work into high returns.

Efficient Powertrain
Running the engine at lower RPM, optimizing the power flow through the transmission, combined with the dedicated hydraulic system significantly improves fuel efficiency with the highest performance capability.

Advanced Systems With Innovative Integration
The deep system integration of the engine and emissions system, powertrain, hydraulic system, and cooling system lower engine speeds and overall system heat loads, resulting in significantly increased performance and fuel efficiency.

Torsion Suspension Undercarriage And Two-Speed
Standard torsion suspension undercarriage and standard two-speed travel, combined with the optional Speed Sensitive Ride Control system improves operation on rough terrain, enabling better load retention, increased productivity, and greater operator comfort.

17. Through these and many other innovations, Caterpillar has earned a reputation as a global leader in heavy equipment technology. Today, Caterpillar equipment is used across virtually every sector of construction, energy, mining, and infrastructure development worldwide, and the "CAT" brand is widely recognized as a symbol of engineering excellence and reliability. Indeed, Caterpillar is consistently ranked as the largest global construction equipment manufacturer in the industry by revenue and industry presence.

18. In the United States, Caterpillar manufactures and sells numerous heavy machinery products, including, for example, compact track loaders, dozers, landfill compactors, and small, medium, and large wheel loaders. These products support agriculture, demolition, construction, mining, oil and gas industries, as well as military construction.

B. Respondents

19. Doosan Bobcat Inc. is a corporation organized and existing under the laws of the Republic of Korea with a principal place of business at Bundang Doosan Tower, 155 Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do 13557, Republic of Korea. Doosan Bobcat Inc. is the ultimate parent company of each proposed Respondent, and on information and belief, Doosan Bobcat Inc. has the ability to direct and control each of its subsidiaries.

20. Doosan Bobcat North America, Inc. is a corporation organized and existing under the laws of the State of Delaware with a principal place of business at 250 East Beaton Drive, West Fargo, North Dakota 58078. On information and belief, Doosan Bobcat North America, Inc., among other things, manufactures, imports, and sells after importation Accused Products in the United States. *See infra* § V.

21. Doosan Bobcat Mexico Monterrey, S. de R.L. de C.V. is a corporation organized and existing under the laws of Mexico with a principal place of business at Avenida Internacional #305, Parque Industrial Interpuerto Monterrey, 65500 Salinas Victoria, Nuevo León, Mexico. On

information and belief, Doosan Bobcat Mexico Monterrey, S. de R.L. de C.V. manufactures Accused Products for the United States market. *See infra* § V.

22. Doosan Bobcat EMEA S.R.O. is a corporation organized and existing under the laws of the Czech Republic with a principal place of business at U Kodetky 1810, 263 12 Dobříš, Czech Republic. On information and belief, Doosan Bobcat EMEA S.R.O. manufactures Accused Products for the United States market. *See infra* § V.

23. Doosan Bobcat France S.A.S. is a corporation organized and existing under the laws of France with a principal place of business at 55 Rue du Chêne Vert, 44160 Pontchâteau, France. On information and belief, Doosan Bobcat France S.A.S. manufactures Accused Products for the United States market. *See infra* § V.

24. Doosan Bobcat India Private Ltd. is a corporation organized and existing under the laws of India with a principal place of business at 6th Floor, HTC Towers, 41 Grand Southern Trunk Road, Guindy Chennai 600032, India. On information and belief, Doosan Bobcat India Private Ltd. manufactures Accused Products for the United States market. *See infra* § V.

25. Respondents are affiliates of Doosan Group, a South Korean conglomerate with a principal place of business at Doosan Tower, 275, Jangchungdan-ro, Jung-gu, Seoul, Korea. Ex. 9 (Doosan, Global Network; available at https://www.doosan.com/en/network/). Bobcat was acquired by Doosan Group subsidiary Doosan Infracore Co. in 2007. Ex. 10 (Wall Street Journal, "Doosan's Record Takeover Puts Korea in Deals Race," July 31, 2007). Doosan Group owns a number of brands other than Doosan Bobcat, including, for example, Doosan Enerbility, Doosan Mottrol, and Doosan Magazine.

26. As set forth below, on information and belief, Doosan imports into the United States, sells for importation into the United States, and/or sells within the United States after

importation heavy machinery or components thereof, including telehandlers, excavators, and loaders, or components thereof.

III. THE TECHNOLOGY AND PRODUCTS AT ISSUE[2]

27. Pursuant to 19 C.F.R. §§ 210.10(b)(1) and 210.12(a)(12), the categories of heavy machinery accused include telehandlers, excavators, and loaders, and components thereof.

28. The Caterpillar DI Products include Caterpillar's '637 DI Products, '837 DI Products, '554 DI Products, and '341 DI Products, as well as components thereof. *See infra* Section VIII.

29. The "Accused Products" include the Accused '637 Patent Products, the Accused '837 Patent Products, the Accused '554 Patent Products, and the Accused '341 Patent Products, as well as components thereof.

30. Caterpillar's '637 DI Products include, but are not limited to, Caterpillar's dozers and wheel loaders equipped with hydrostatic torque control systems. The hydrostatic torque control systems of the '637 DI Products contain electronic control modules that adjust an operator request of the transmission to ensure that the '637 DI Products exert an appropriate torque load on the engine, preventing issues such as stalling. One example of the '637 DI Products using the hydrostatic torque control system is the 930 wheel loader, which has "an intelligent hydrostatic power train." Ex. 11 (Caterpillar, 930 Small Wheel Loader, Features at a Glance, Efficiently Powerful; available at https://www.cat.com/en_US/products/new/equipment/wheel-loaders/small-wheel-loaders/123460.html).

[2] This Complaint, including this section, does not, and is not intended to, construe or limit the scope or meaning of the Asserted Patents or any of their claims. Any identification of a specific model or type of Accused Product in this Complaint is not intended to limit the scope of this investigation.

Exemplary '637 DI Product: 930 Wheel Loader

31. The Accused '637 Patent Products include, but are not limited to, Doosan products equipped with certain economy (or "eco") modes, "Eco-Ride," and/or horsepower control (the "Accused '637 Patent Products"). The Accused '637 Patent Products include, but are not limited to, Telehandlers (*e.g.*, TL519, TL619, TL623, TL723, TL923), and Compact Track and Skid-Steer Loaders (*e.g.*, S76, S86, S770, T76, T86, T740, T770, and additional models of heavy machinery with selectable joystick controls). *See, e.g.*, Ex. 12 (Doosan, T86 Compact Track Loader; available at https://www.bobcat.com/na/en/equipment/loaders/compact-track-loaders/t86) at 36.

The Accused T86 Compact Track Loader

32. The Accused ’637 Patent Products rely on control systems that use torque-based inputs to adjust operator commands and ensure that a torque load exerted on an engine is within a desired range, *e.g.*, to prevent the engine from being overloaded and stalling. For example, the webpage for Doosan’s TL723 telehandler states that the “telehandlers monitor engine and hydraulic functions.” Ex. 13 (Doosan, TL723 Telehandler, Durability & Uptime Protection: Machine Protection; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl723). Doosan’s telehandlers are also equipped with economy mode features that maintain hydraulic performance or travel speed while reducing engine speed. *See id*. (describing “ECO Mode”). The Accused ’637 Patent Products with selectable joystick controls—such as Compact Track Loaders and Skid-Steer Loaders—are equipped with a “horsepower management” feature that “automatically adjusts the workload on the hydraulic pumps to reduce the chance of the engine stalling.” *See* Ex. P1 (“Bobcat Joystick Series: Horsepower Management” at 0:09–0:22; available at https://www.youtube.com/watch?v=Bd_G86HoYaI); *see also* Ex. 14 (Doosan, Adaptive

Performance, Features & Benefits: Horsepower Management; available at https://www.bobcat.com/na/en/equipment/loaders/compact-track-loaders/features/productivity/performance#adaptive-control).

33. Caterpillar's '837 DI Products include, but are not limited to, Caterpillar's compact track loaders, dozers, wheel dozers, landfill compactors, and wheel loaders. The '837 DI Products contain a hydraulic control system that manages a hydraulic pump coupled to an engine, such that the pump power is determined based on engine speed. For example, '837 DI Products such as the 930 wheel loader include "machine and implement electronic control modules" that "control the hydraulic drive system based on operator and machine inputs." Ex. 15 (Systems Operation Manual – 924, 926, 930, and 938 Wheel Loaders Machine Systems) at 16; *see also* Ex. 11 (Caterpillar, 930 Small Wheel Loader; available at https://www.cat.com/en_US/products/new/equipment/wheel-loaders/small-wheel-loaders/123460.html).

Exemplary '837 DI Product: 930 Wheel Loader

34. The Accused '837 Patent Products include, but are not limited to, Doosan products equipped with Smart Power Control and/or Pump Torque Control (the "Accused '837 Patent Products"). The Accused '837 Patent Products include, but are not limited to, Large Excavators

(*e.g.*, E145, E165, E220, E245). *See, e.g.*, Ex. 16 (Doosan, E145 Large Excavator; available at https://www.bobcat.com/na/en/equipment/excavators/large-excavators/e145).

The Accused Excavator E145

35. The Accused '837 Patent Products rely on control systems that limit the power used by the pump by detecting an engine speed, determining a desired power value based on user input, identifying an allowable power value from a map, and selecting the lower of an allowable power value and the desired power value to ensure that a selected power value is based on what the engine can handle, *e.g.*, preventing engine lug. The system thereby functions to improve operator efficiency and productivity. For example, Doosan manuals describe the Smart Power Control feature which "reduce[s] engine speed in the low load range to appropriate level through variable engine speed control which is carried out by detecting actual engine load and the operator's control action for heavy load operations" and "reduc[es] unnecessary engine load through optimized control of pump torque in accordance with the engine torque." Ex. 17 (E145 Operation Manual) at 3-33.

36. Caterpillar's '554 DI Products include, but are not limited to, Caterpillar's compact track loaders. The '554 DI Products use a controller to output motor and pump displacement command signals, based on machine speed and operator input, to maintain either a constant machine speed, a constant acceleration, or a constant deceleration—thus providing a smoother driving experience. For example, DI Products such as Caterpillar's 255 loader use a smooth two-speed shift control logic to maintain at least one of constant machine speed, acceleration, or deceleration during adjustment of the pump and motor displacement. *See* Ex. 18 ('554 DI Chart); *see also, e.g.*, Ex. 19 (Caterpillar, 255 Compact Tracker Loader; available at https://www.cat.com/en_US/products/new/equipment/skid-steer-and-compact-track-loaders/compact-track-loaders/122740.html).

Exemplary '554 DI Product: 255 Compact Track Loader

37. The Accused '554 Patent Products include, but are not limited to, Doosan products equipped with certain "smooth" drive modes (the "Accused '554 Patent Products"). The Accused '554 Patent Products include, but are not limited to, Telehandlers (*e.g.*, TL519, TL619, TL623,

TL723, TL923). *See, e.g.*, Ex. 20 (Doosan, TL519 Telehandler; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl519).

The Accused Telehandler TL519

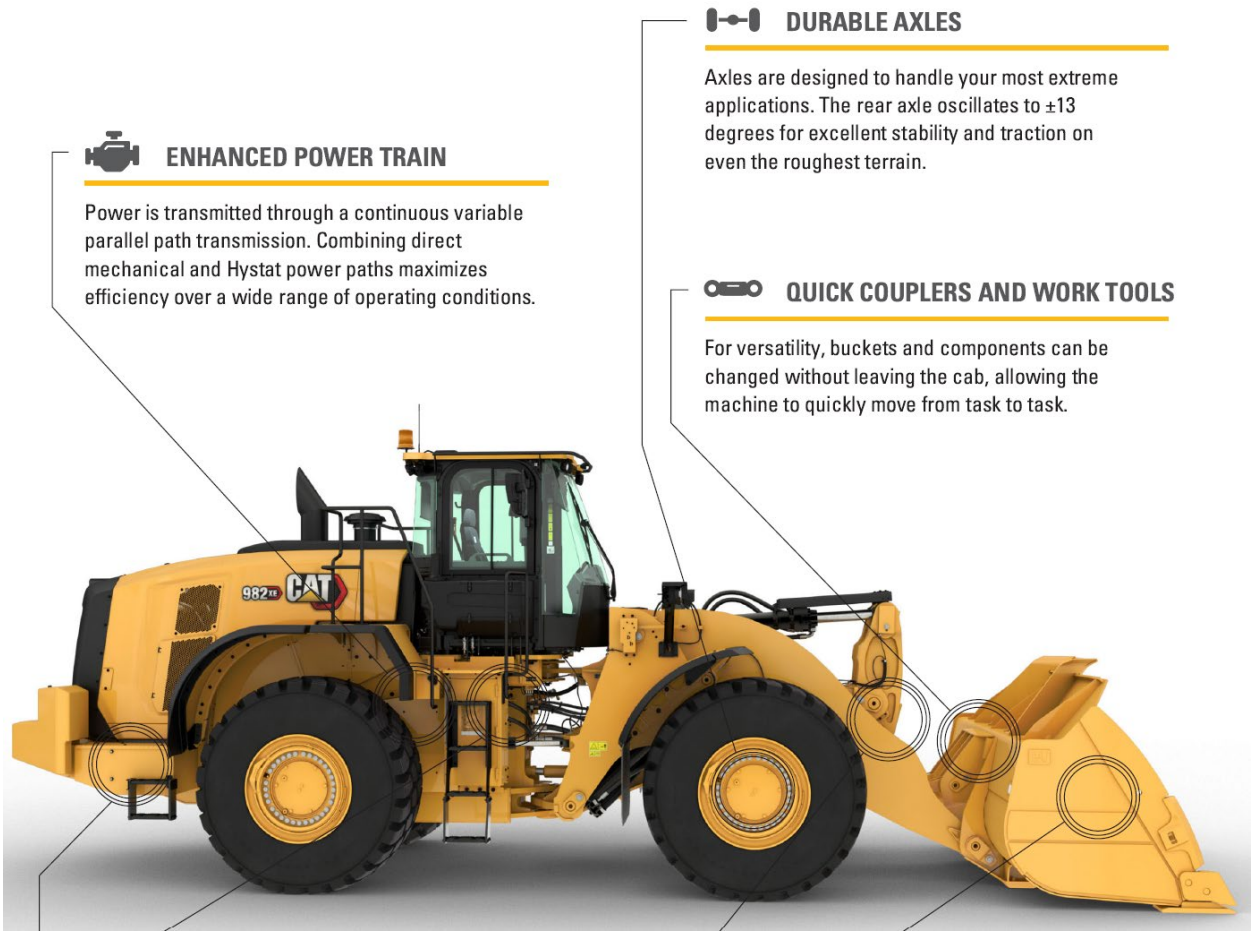
38. The Accused '554 Patent Products rely on control systems comprising controllers for pumps and hydraulic motors. The controllers are configured to receive inputs for a desired speed command relative to a current machine speed (*e.g.*, a command to accelerate, decelerate, or maintain speed) and then adjust the displacement of the pump and motor swashplates such that the machine either maintains a constant speed, a constant acceleration, or a constant deceleration during said displacement. The system thereby functions to improve the drive response, providing a smoother driving experience. For example, Doosan advertises that its telehandler products comprise a "smooth drive mode" that provides "a smoother response to acceleration and deceleration, enhancing precision at lower speeds." *See id.*

39. Caterpillar's '341 DI Products include, but are not limited to, Caterpillar's wheel loaders equipped with certain economy modes and control systems. The control systems of the '341 DI Products use the machine's ground speed and engine load to adjust engine speed and torque commands, resulting in an economy powertrain output—*e.g.*, one that improves fuel economy. One example of the '341 DI Products using the claimed control system is the 982 XE wheel loader, which has "[d]eep system integration of the Cat continuously variable transmission,

engine, hydraulic, and cooling systems," resulting "in significantly increased performance and fuel efficiency." Ex. 21 (Caterpillar, 982 XE Wheel Loader, Features at a Glance: Delivering Excellent Fuel Efficiency; available at https://www.cat.com/en_US/products/new/equipment/wheel-loaders/medium-wheel-loaders/130322.html).

Exemplary '341 DI Product: 982 XE Wheel Loader

40. Certain embodiments of the '341 Patent's claimed invention contribute to "maximize[d] efficiency over a wide range of operating conditions" in the '341 DI Products. Ex. 22 (982 XE Brochure) at 7.



41. The Accused '341 Patent Products include, but are not limited to, Doosan products equipped with certain economy modes (the "Accused '341 Patent Products"). The Accused '341 Patent Products include, but are not limited to, Telehandlers (*e.g.*, TL519, TL619, TL623, TL723, TL923). *See, e.g.*, Ex. 23 (Doosan, TL923 Telehandler, Performance, Five Operation Modes; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl923).

The Accused Telehandler TL923

42. The Accused '341 Patent Products rely on control systems that adjust engine speed and torque commands based on the machine's ground speed and engine load, to create an economy powertrain output. For example, Doosan manuals describe the "ECO Mode" feature that will "[m]aintain hydraulic performance without using the engine's full power – allowing you to work with lower rpm." *See id.* Certain Accused '341 Patent Products such as the TL923 also include an "E[co]-Ride" feature that "[r]educes fuel consumption by lowering engine rpm once the travel speed is stabilized." *Id*.

IV. THE ASSERTED PATENTS AND NONTECHNICAL DESCRIPTIONS OF THE INVENTIONS

A. The '637 Patent

i. Identification and Ownership of the '637 Patent

43. Caterpillar owns by assignment U.S. Patent No. 8,515,637 titled "Machine Control System and Method." The '637 Patent issued August 20, 2013, naming Randall T. Anderson and Corwin E. Storer as the inventors. A copy of the '637 Patent is attached as Exhibit 1. A copy of the assignments for the '637 Patent is attached as Exhibit 5. A copy of the prosecution history of the '637 Patent is attached as Appendix A.

ii. Expiration date for the ’637 Patent

44. The ’637 Patent expires on November 9, 2031.

iii. Foreign & Domestic Counterparts to the ’637 Patent

45. PCT application PCT/US2011/063478, which was published as WO 2012/087564, titled “Machine Control System and Method” corresponds to the ’637 Patent. Ex. 24. It was filed on December 6, 2011, and was published on June 28, 2012. This led to national phase entries for the application.

46. Japanese patent application JP2013546185 was published as JP2014505839 on March 6, 2014. Ex. 25. The application is pending. Brazilian patent application BR112013016180 was published on September 20, 2016. Ex. 26. German patent application DE112011104504 was published on December 12, 2013, and was granted on March 31, 2022. Ex. 27. European Patent application EP11850046 was abandoned. There are no other known foreign or domestic counterparts to the ’637 Patent.

iv. Non-technical Description of the ’637 Patent

47. The ’637 Patent is related to a control system for machines, like loaders, tractors, and other heavy machinery. The invention of the ’637 Patent relates to, among other things, systems for controlling hydrostatic transmissions. Prior to the invention of the ’637 Patent, control of hydrostatic transmissions was achieved by sensing engine speed, as the engine supplies power to the transmission. Because the transmission is downstream of the engine, relying on engine data alone meant that transmission performance could be negatively affected before a problem was detected and accounted for.

48. The control system of the ’637 Patent includes a device that receives torque inputs from the transmission of the machine (*e.g.*, pressure signals) and operator requests relating to the transmission (*e.g.*, from a joystick). A processor uses the torque inputs to adjust the operator’s

request, working proactively to keep the torque load placed on the engine within a desired range. The adjusted operator request is sent to the hydrostatic transmission. The control system thereby functions to improve operator efficiency and productivity.

49. For example, in prior art systems, an excessive transmission torque could cause the engine to stall or become more susceptible to stalling. By factoring in torque inputs, the control system of the ’637 Patent can proactively adjust operator commands to the transmission, thereby reducing engine overload, wear-and-tear, and downtime.

v. Licensees to the ’637 Patent

50. There are no entities that have licenses under the ’637 Patent.

B. The ’837 Patent

i. Identification and Ownership of the ’837 Patent

51. Caterpillar owns by assignment U.S. Patent No. 9,133,837 titled “Method of Controlling a Hydraulic System.” The ’837 Patent issued September 15, 2015, naming Mark David Anderson and Michael Anthony Spielman, Jr. as the inventors. A copy of the ’837 Patent is attached as Exhibit 2. A copy of the assignments for the ’837 Patent is attached as Exhibit 6. A copy of the prosecution history of the ’837 Patent is attached as Appendix B.

ii. Expiration date for the ’837 Patent

52. The ’837 Patent expires on March 13, 2034.

iii. Foreign & Domestic Counterparts to the ’837 Patent

53. PCT application PCT/US2009/041527, filed on April 23, 2009, was published as WO 2009/132180 on October 29, 2009, and corresponds to the ’837 Patent. Ex. 28. European Patent application EP09734447, which was the European entry of the PCT application, was abandoned. Chinese patent application CN200980114577 is a foreign patent application corresponding to the ’837 Patent and was the Chinese entry of the PCT application. Ex. 29. It was

filed on April 23, 2009 and was published as CN102016187 on April 13, 2011. *Id.* The application is pending. There are no other known foreign or domestic counterparts to the ’837 Patent.

iv. Non-technical Description of the ’837 Patent

54. The ’837 Patent is related to a hydraulic system, that is, a system that uses pressurized fluid to transmit power, create motion, and control force in machinery. In drawing power from an engine, hydraulic systems place a load on the engine; if that load exceeds the power the engine can output, the engine will lug or even stall. Prior to the invention of the ’837 Patent, hydraulic control was achieved by operator adjustments—which might ‘overcorrect’ for perceived engine load—or by control systems that used complicated, expensive multi-sensor setups to control engine lug.

55. The invention of the ’837 Patent relates to, among other things, a system and method of controlling a hydraulic pump coupled to an engine. The control system detects a speed of the engine and determines a desired power value based on user input. The control system identifies an allowable power value that the pump may use at the detected engine speed using a map. The system then adjusts to limit the pump power value to be the lower of the allowable power or the desired power value.

56. By limiting the power used by the pump, the control system of the ’837 Patent can avoid engine lug or stalling. Because the control system of the ’837 Patent only limits pump power when and to the extent needed, machine performance and operator perception of that performance can be improved.

v. Licensees to the ’837 Patent

57. There are no entities that have licenses under the ’837 Patent.

C. The ’554 Patent

i. Identification and Ownership of the ’554 Patent

58. Caterpillar owns by assignment U.S. Patent No. 9,347,554 titled “Hydrostatic Drive System.” The ’554 Patent issued May 24, 2016, naming Rustin G. Metzger, Carl Moberg, Corwin E. Storer, and Paul A. Dvorak as the inventors. A copy of the ’554 Patent is attached as Exhibit 3. A copy of the assignments for the ’554 Patent is attached as Exhibit 7. A copy of the prosecution history of the ’554 Patent is attached as Appendix C.

ii. Expiration date for the ’554 Patent

59. The ’554 Patent expires on September 21, 2034.

iii. Foreign & Domestic Counterparts to the ’554 Patent

60. The ’554 Patent does not have any foreign or domestic counterparts.

iv. Non-technical Description of the ’554 Patent

61. The ’554 Patent is related to a hydrostatic drive system. Hydrostatic drive systems refer to machine drivetrains that use pressurized hydraulic fluid to propel the machine. This typically involves an engine that drives a pump, which supplies the fluid to a motor that is connected to the axles of the machine. How a machine drives—for instance, how quickly or how steadily—thus depends on how the hydrostatic drive system is controlled. Prior to the invention of the ’554 Patent, control of the hydrostatic drive system could cause shocks or jerks in machine motion, especially while accelerating or decelerating.

62. The invention of the ’554 Patent relates to, among other things, a hydrostatic drive system comprising a pump, a hydraulic motor, and a controller. The controller operates by receiving input signals indicative of machine speed and user input, and sending displacement commands to the pump and motor swashplates. The controller outputs the motor and pump

displacement command signals in order to maintain either a constant machine speed, a constant acceleration, or a constant deceleration.

63. The hydrostatic drive system of the ’554 Patent better controls the motor and pump operation, providing a smoother drive experience, which in turn reduces machine wear-and-tear, improves efficiency, and improves the operator experience.

v. Licensees to the ’554 Patent

64. There are no entities that have licenses under the ’554 Patent.

D. The ’341 Patent

i. Identification and Ownership of the ’341 Patent

65. Caterpillar owns by assignment U.S. Patent No. 10,059,341 titled “Control Strategy for Reduced Fuel Consumption in Machine and Powertrain System with Same.” The ’341 Patent issued August 28, 2018, naming Jeremy Sharp, Suman Goli, and Mark Rettig as the inventors. A copy of the ’341 Patent is attached as Exhibit 4. A copy of the assignments for the ’341 Patent is attached as Exhibit 8. A copy of the prosecution history of the ’341 Patent is attached as Appendix D.

ii. Expiration date for the ’341 Patent

66. The ’341 Patent expires on December 10, 2036.

iii. Foreign & Domestic Counterparts to the ’341 Patent

67. German patent application DE102017113253, titled “Control Strategy for Reduced Fuel Consumption in Machine and Powertrain System with same,” is a foreign patent application corresponding to the ’341 Patent. Ex. 30. It was filed on June 16, 2017, and was published on December 21, 2017. The application is pending. There are no other known foreign or domestic counterparts to the ’341 Patent.

iv. Non-technical Description of the ’341 Patent

68. The ’341 Patent is related to a control system for the main power and drivetrain components of a heavy machine, including control systems that improve fuel economy. Improved efficiency is an important consideration for heavy machinery, but typically involves tradeoffs. For example, prior to the ’341 Patent, fuel economy was often improved by one-size-fits-all solutions—such as limiting engine speed by a fixed percentage, or by limiting torque in a similar manner.

69. The invention of the ’341 Patent relates to, among other things, control systems that sense ground speed and engine load, thereby creating an economy powertrain output. The control system senses the engine’s load and how fast the machine is traveling. Using the engine load and/or ground speed, the control system adjusts operator commands for both the engine and transmission, resulting in an economy powertrain output.

70. The control system of the ’341 Patent operates to limit engine speed and torque to reduce fuel consumption, thereby improving fuel economy during work. The control system of the ’341 Patent also provides flexibility not seen prior to its invention, allowing for tunable adjustments across operating conditions and machine types—thus operating to maximize productivity, while reducing fuel consumption.

v. Licensees to the ’341 Patent

71. There are no entities that have licenses under the ’341 Patent.

V. RESPONDENTS’ UNLAWFUL AND UNFAIR ACTS

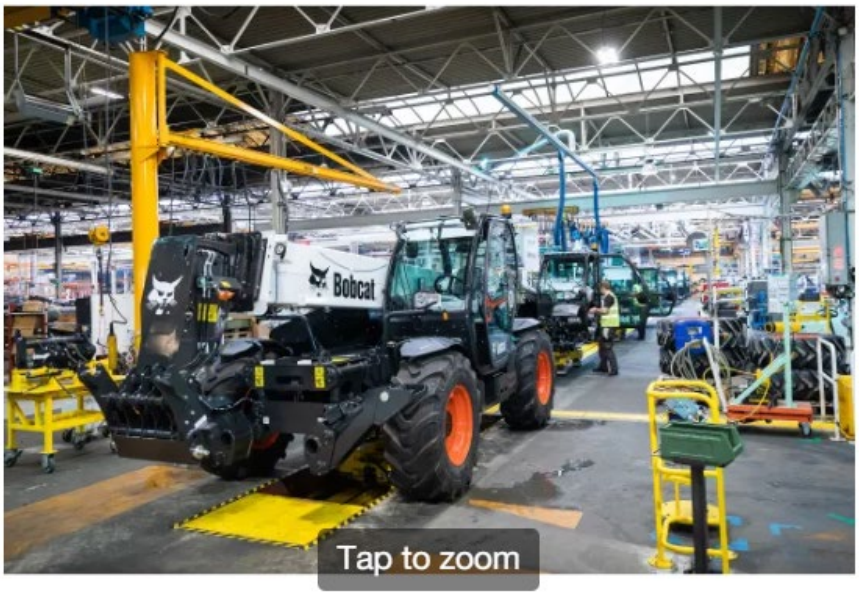
72. Doosan sells for importation, imports into the United States and/or sells in the United States after importation certain heavy machinery and components thereof that infringe one or more claims of the Asserted Patents. Specific examples of infringing products imported into and sold within the United States by or on behalf of Doosan are set forth below in detail. These

instances are exemplary in nature and not intended to restrict the scope of any remedial relief the International Trade Commission may order.

A. Importation and Sale

73. On information and belief, Doosan's Accused Products are manufactured abroad. On information and belief, the Accused Products are imported into the United States by Doosan or on its behalf and subsequently sold after importation by Doosan or on its behalf.

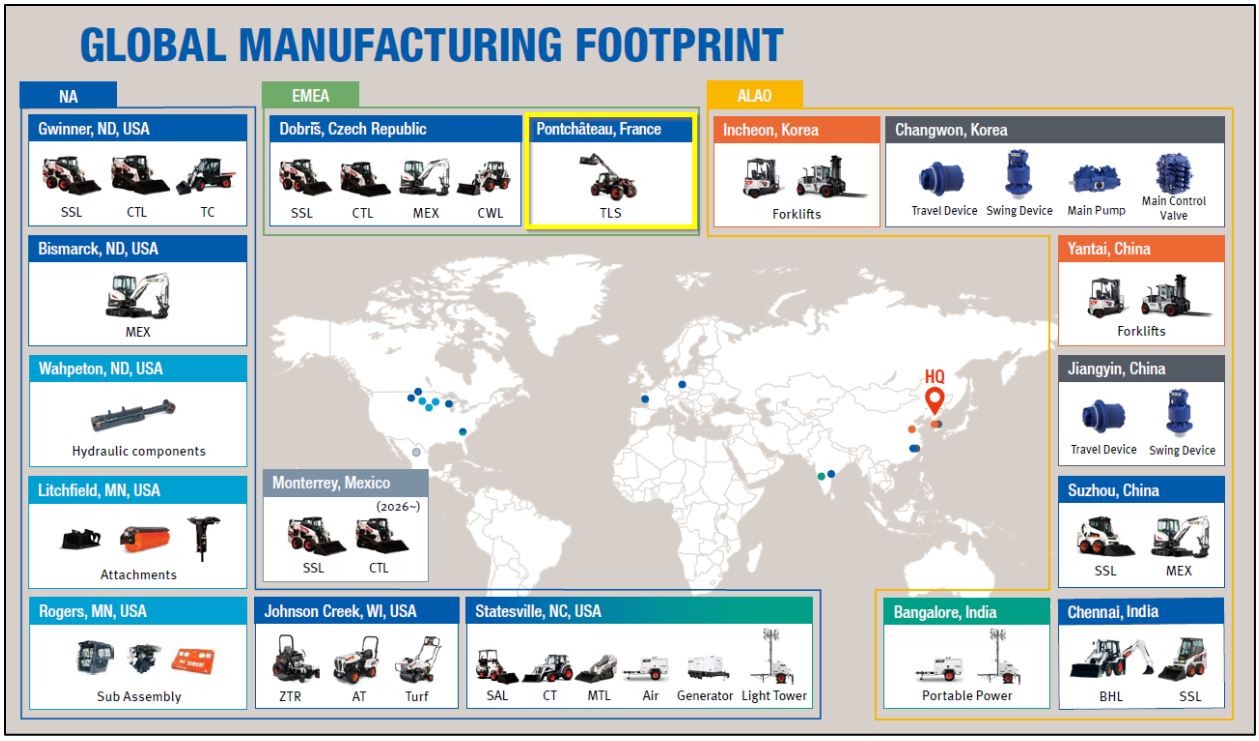
74. Telehandlers accused of infringing the '341, '637, and '554 Patents are manufactured abroad and imported for sale into the United States. For example, Doosan's website states that Pontchâteau, Loire-Atlantique, France "is home to Bobcat telehandlers that are exported to Europe, the Middle East, Africa, Russia, CIS, the Americas, and Oceania." Ex. 31 (Doosan, Global Locations, Pontchâteau, Loire-Atlantique, France; available at https://www.doosanbobcat.com/en/about/global). A Doosan press release about the Pontchâteau facility included a quote from the factory manager explaining that "over 80%" of its telehandler production was targeted for export:



"Our current telehandler line-up consists of 14 models in five platforms, with key markets in agriculture, construction and rental. Managing such a comprehensive portfolio is only possible thanks to our experienced engineering team, which is running all the European operations and contributing to global telehandler development activities. The majority of our production, over 80%, is targeted for export," says **Philippe Marescot, Pontchâteau factory manager at Doosan Bobcat EMEA**.

Ex. 32 (Doosan, "Bobcat Celebrates 60 years of Pontchâteau, France Factory" (Sep. 6, 2023); available at https://www.bobcat.com/eu/en/company/news-and-media/press-release/bobcat-celebrates-60-years-of-pontchateau-france-factory).

And a 2025 Doosan Company Profile showed that telehandler models were manufactured in Pontchâteau, France:

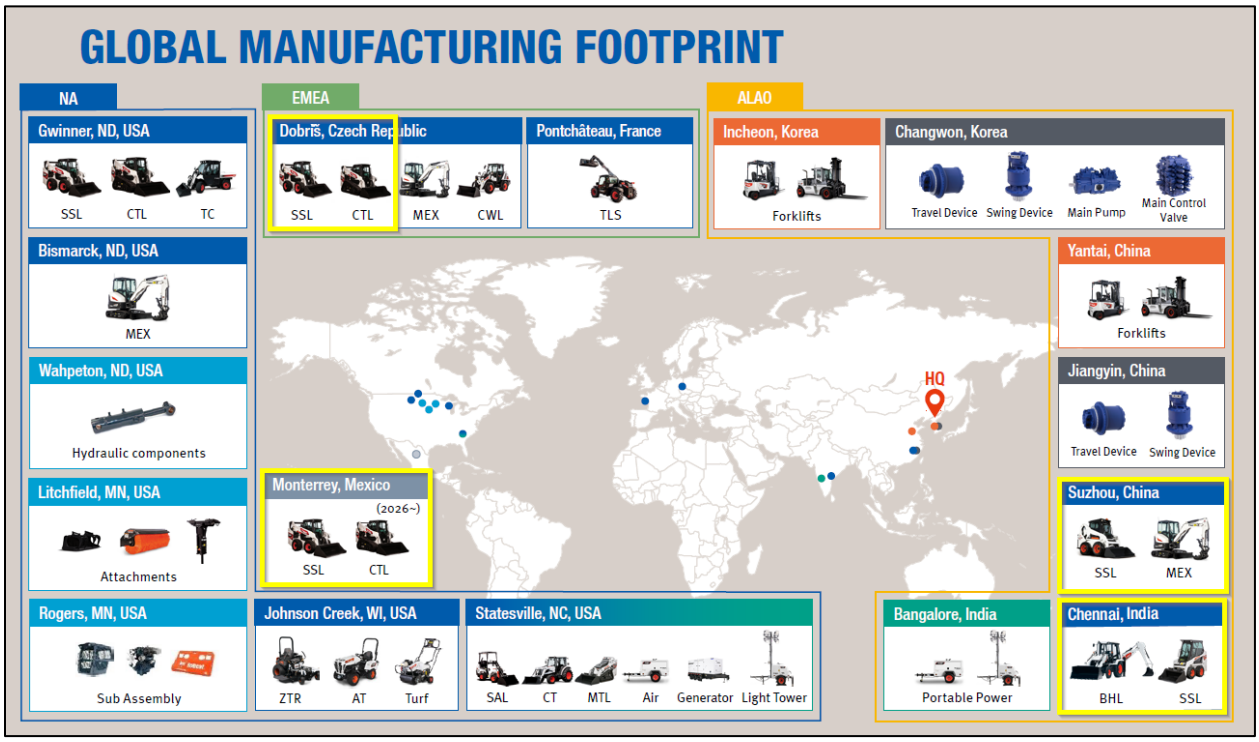


Ex. 33 (2025 Doosan Company Profile) at 16 (annotated).

Consistent with Doosan's public statements, listings for telehandler models TL519, TL619, TL623, TL723, and TL923 on sale in the United States indicate that the products were made in France. Ex. 34 (TL519 Listing; machine located in South Brookings, South Dakota); Ex. 35 (TL619 Listing; machine located in Pipestone, Minnesota); Ex. 36 (TL623 Listing; machine located in Dillon, Montana); Ex. 37 (TL723 Listing; machine located in Athens, Georgia); Ex. 38 (TL923 Listing; machine located in Gering, Nebraska).

75. Large excavators accused of infringing the '837 Patent are manufactured abroad and imported for sale into the United States. For example, listings for large excavator models E145 and E165 on sale in the United States indicate that the products were made in South Korea. Ex. 39 (E145 Listing; machine located in Freehold, New Jersey); Ex. 40 (E165 Listing; machine located in Johnstown, New York).

76. Compact track loaders and skid-steer loaders accused of infringing the '637 Patent are also manufactured abroad. For example, a 2025 Doosan Company Profile showed that compact track loaders and skid-steer loaders were manufactured in China, the Czech Republic, and India, and were slated to be manufactured in Mexico beginning in 2026.



Ex. 33 (2025 Doosan Company Profile) at 16 (annotated).

77. Doosan's website likewise confirms foreign manufacture of its loaders:

Dobris, Central Bohemian, Czech Republic

Dobris, about 40km southwest of Prague, is a headquarter of EMEA (Europe, Middle East and Africa) where Bobcat plant and R&D center are located A training center offers training programs for subsidiaries and dealers for Doosan's heavy machinery, Bobcat's equipment, and Portable Power products. The plant is also used for fabrication, welding, painting and assembly of Bobcat mid-to-small-sized loaders, excavators and diverse attachments.

Suzhou, Jiangsu, China

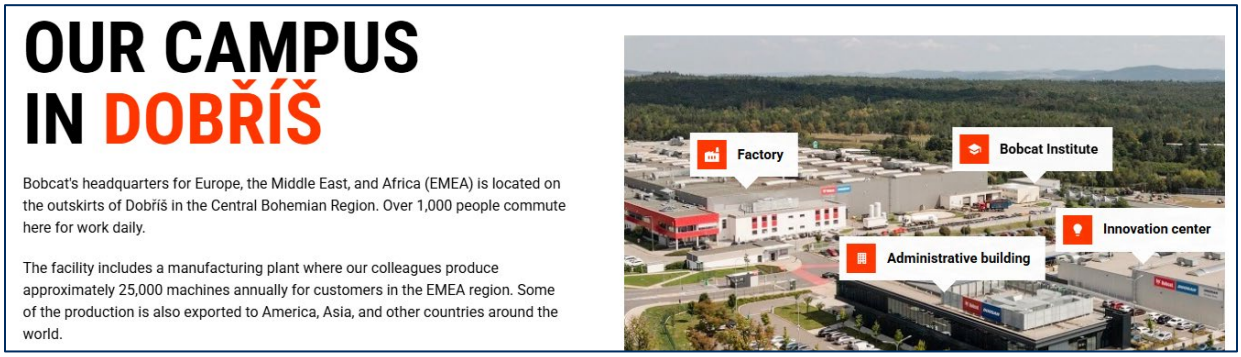
The Suzhou facility in China opened in April 2007. It covers 2,580,000 square feet and is located in the Suzhou Singapore Industrial Park, Jiangsu. It is mainly focused on skid-steer loader manufacturing and sales.

Chennai, Tamil Nadu, India

Established in 2019, the Chennai manufacturing facility is the global production base for Backhoe Loaders. The Chennai facility is leaping into a global production hub while expanding its production line to include Skid-Steer Loaders and Mini-Excavators.

Ex. 31 (Doosan Global Locations; available at https://www.doosanbobcat.com/en/about/global).

78. Doosan's Czech Republic website notes that units manufactured in the Dobříš plant are "exported to America," among other locations.



Ex. 41 (Bobcat Dobříš; available at https://bobcatdobris.cz/en/).

79. Likewise, Doosan touts that it invested over $300 million in its Mexico plant "to meet the growing demand for construction equipment in the North American market." Ex. 42 (Doosan Press Release; available at https://www.doosan.com/en/media-center/press-release_view?id=20172594) at 1. The Doosan website states that the plant "will create additional production capacity and manufacturing capabilities for select compact track and skid-steer loader models." Ex. 43 (Doosan Latin America; available at https://www.bobcat.com/la/en/company/locations) at 5. According to a recent video, the plant is operational and production has begun. Ex. P2 (Instagram, Invest Monterrey Video; available at https://www.instagram.com/reel/DXvBjgit-of/). An image of the plant is shown below.

Ex. 44 (Doosan Mexico Facility; available at https://www.google.com/maps).

80. Compact track loaders and skid-steer loaders accused of infringing the ’637 Patent are also manufactured in the United States with domestic and foreign components. For example, listings for compact track loader and skid-steer loader models T740, T76, T770, T86, S76, S770, and S86 on sale in the United States indicate that the products were “made in USA with domestic and foreign components.” Ex. 45 (T740 Listing; machine located in Fort Myers, Florida); Ex. 46 (T76 Listing; machine located in Burnt Hills, New York); Ex. 47 (T770 Listing; machine located in Hudson, Colorado); Ex. 48 (T86 Listing; machine located in Oklahoma City, Oklahoma); Ex. 49 (S76 Listing; machine located in Grand Island, Nebraska); Ex. 50 (S770 Listing; machine located in Orem, Utah); Ex. 51 (S86 Listing; machine located in Devils Lake, North Dakota).

B. Direct Infringement

i. The ’637 Patent

81. Doosan infringes, literally and/or under the doctrine of equivalents, at least claims 1–4, 12–14, and 17–18 of the ’637 Patent (“the Asserted ’637 Claims”). Doosan directly infringes these claims under 35 U.S.C. § 271(a) by making, using, offering to sell, importing, testing, and/or

selling after importation into the United States the Accused ’637 Patent Products. On information and belief, Doosan imports into the United States and/or sells after importation the Accused ’637 Patent Products.

82. A claim chart comparing asserted independent claims 1, 12, and 17 of the ’637 Patent to a representative Accused ’637 Patent Product is attached as Exhibit 52.

ii. The ’837 Patent

83. Doosan infringes, literally and/or under the doctrine of equivalents, claims 1, 4–5, 7, 9–10, and 12–17 of the ’837 Patent (“the Asserted ’837 Claims”). Doosan directly infringes these claims under 35 U.S.C. § 271(a) by making, using, offering to sell, importing, testing, and/or selling after importation into the United States the Accused ’837 Patent Products. On information and belief, Doosan imports into the United States and/or sells after importation the Accused ’837 Patent Products.

84. A claim chart comparing asserted independent claims 1, 11, and 15 of the ’837 Patent to a representative Accused ’837 Patent Product is attached as Exhibit 53.

iii. The ’554 Patent

85. Doosan infringes, literally and/or under the doctrine of equivalents, at least claims 1–11 of the ’554 Patent (“the Asserted ’554 Claims”). Doosan directly infringes these claims under 35 U.S.C. § 271(a) by making, using, offering to sell, importing, testing, and/or selling after importation into the United States the Accused ’554 Patent Products. On information and belief, Doosan imports into the United States and/or sells after importation the Accused ’554 Patent Products.

86. A claim chart comparing asserted independent claims 1 and 7 of the ’554 Patent to a representative Accused ’554 Patent Product is attached as Exhibit 54.

iv. The ’341 Patent

87. Doosan infringes, literally and/or under the doctrine of equivalents, claims 1–4 of the ’341 Patent (“the Asserted ’341 Claims”). Doosan directly infringes these claims under 35 U.S.C. § 271(a) by making, using, offering to sell, importing, testing, and/or selling after importation into the United States the Accused ’341 Patent Products. On information and belief, Doosan imports into the United States and/or sells after importation the Accused ’341 Patent Products.

88. A claim chart comparing asserted independent claim 1 of the ’341 Patent to a representative Accused ’341 Patent Product is attached as Exhibit 55.

C. Indirect Infringement

89. On information and belief, Doosan directly infringes the Asserted Claims at least through making, using, offering to sell, importing, testing, and/or selling after importation into the United States the Accused Products. Further, on information and belief, Doosan indirectly infringes the Asserted Claims, at least by inducing others to directly infringe the claimed inventions in the United States and by providing or selling the Accused Products, which are specially designed and made for use in an infringing manner, to others.

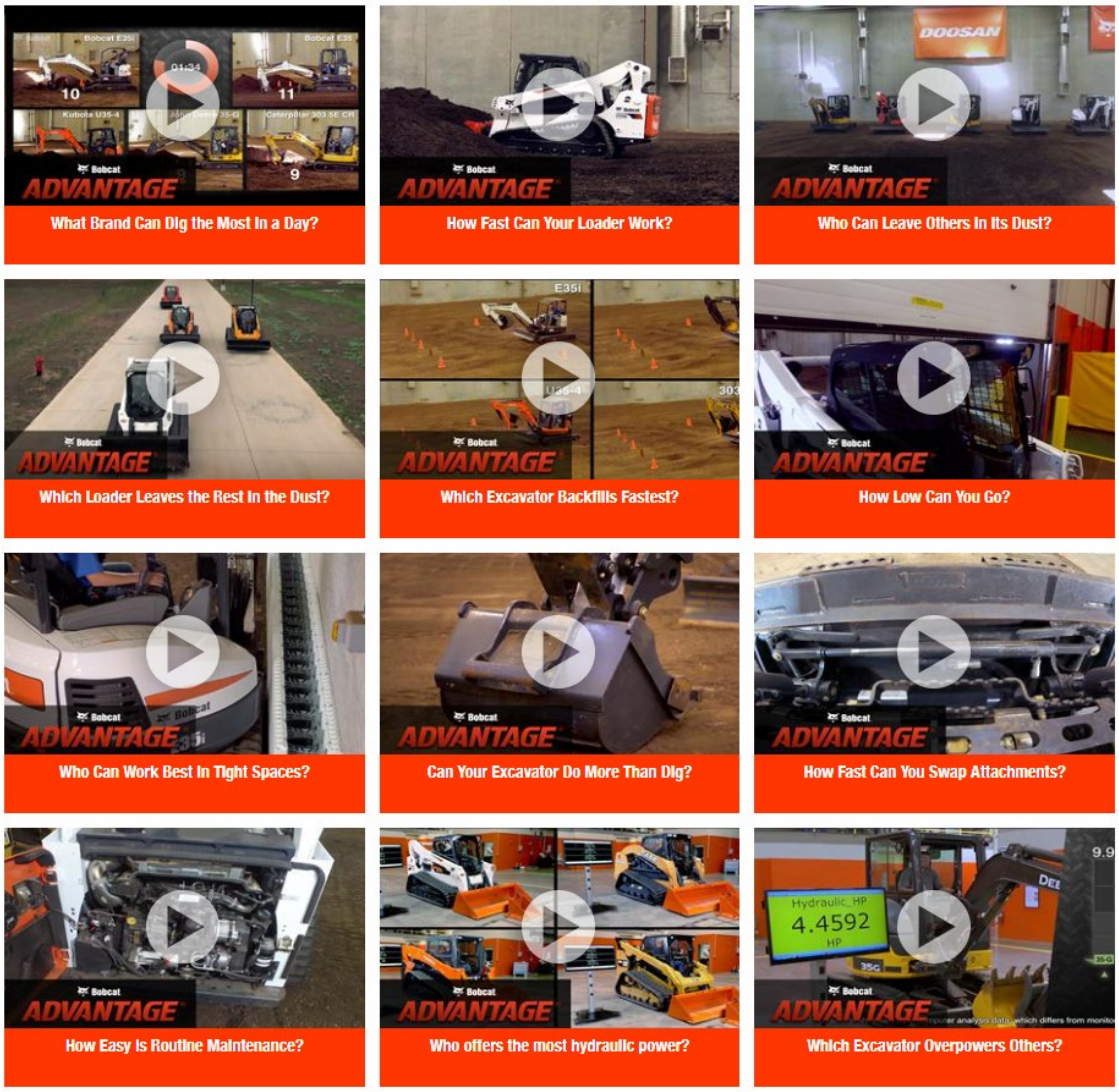
90. On information and belief, Doosan has actively and knowingly induced, and continues to induce, direct infringement of the Asserted Claims at least by its customers and/or end users with the specific intent that such customers’ and/or end users’ acts infringe the Asserted Claims.

91. Doosan has had actual knowledge of the '637, '837, '554, and '341 Patents since at least the date of filing and service of the related district court complaint (*see* § VII*, infra*), and no later than the filing and service of this Complaint.[3]

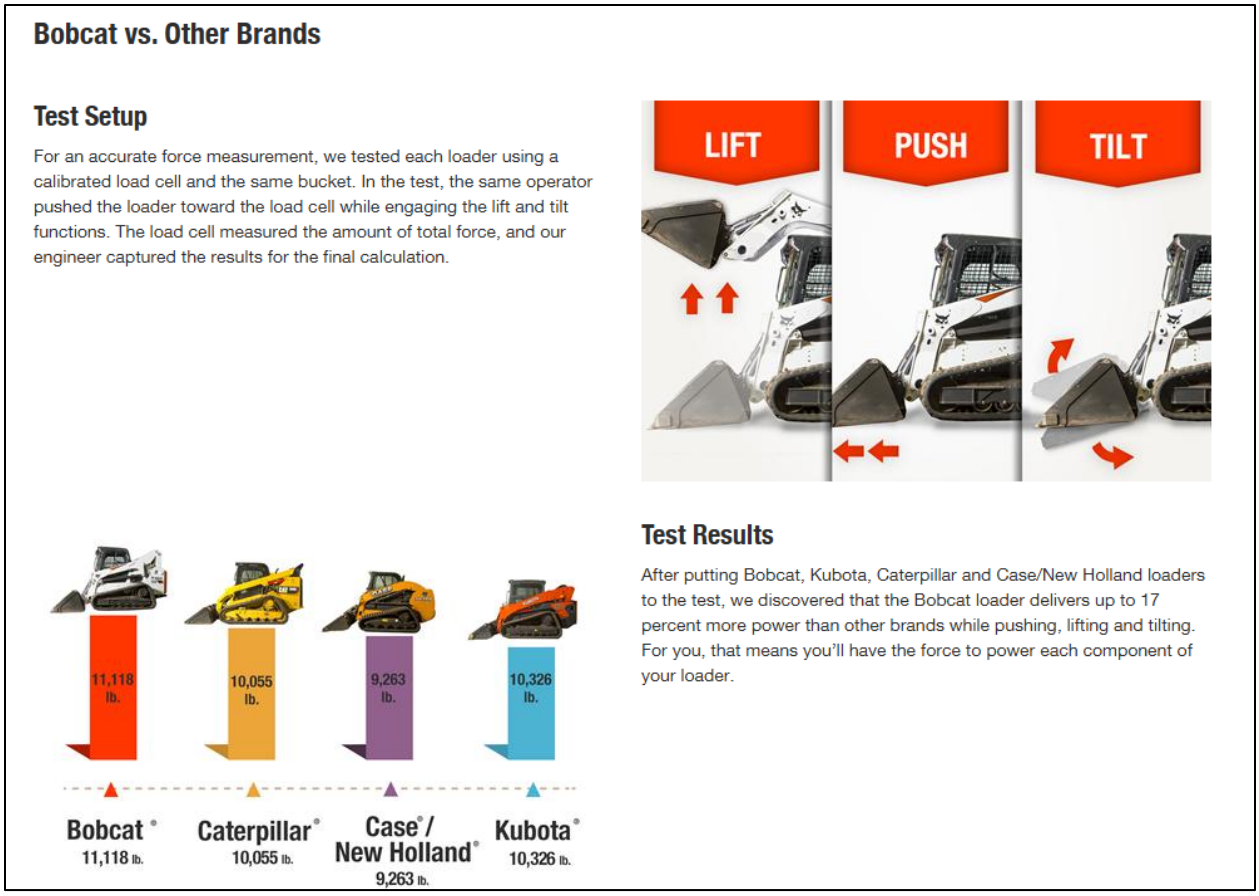
92. On information and belief, Doosan has knowledge of the Asserted Patents through its competitive monitoring of Caterpillar. Doosan has closely monitored Caterpillar's continued advancement and investments in innovation. In particular, on information and belief, Doosan is aware of Caterpillar's products and patents, including the Asserted Patents.

93. Doosan has long monitored Caterpillar and its products as part of an extensive competitive intelligence program focused on Caterpillar's products and technologies. For example, Doosan maintained a website titled "Bobcat Advantage" at *bobcatadvantage.com*, which contained detailed video and webpage comparisons between Doosan equipment and Caterpillar equipment and reflected Doosan's extensive analysis of Caterpillar products and technologies.

[3] Concurrently with the filing of this Complaint, the Complaint and non-confidential copies of the Exhibits to the Complaint will be provided to Respondents at the mailing addresses herein identified on the front cover.



Ex. 56 (Doosan, Competitive Comparison Test Overview; available at https://web.archive.org/web/20170112060500/http://www.bobcat.com/compare-brands/advantage).

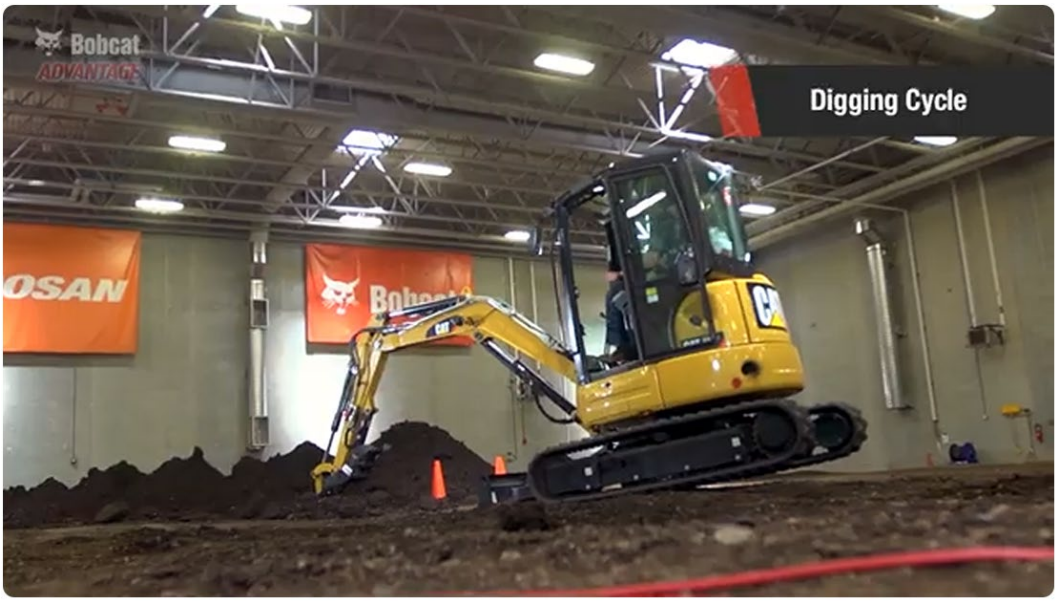


Ex. 57 (Doosan, Bobcat Advantage; available at https://web.archive.org/web/20170101071824/http://www.bobcat.com/compare-brands/loaders?alias=hydraulic-performance).

These webpages describe Doosan's side-by-side comparisons of Caterpillar machines and demonstrate Doosan's detailed familiarity with Caterpillar's design choices, performance characteristics, and technological features.

94. The "Bobcat Advantage" videos further confirm Doosan's identification of Caterpillar as a competitor and Doosan's extensive competitive intelligence about Caterpillar, including the possession and use of Caterpillar machines.

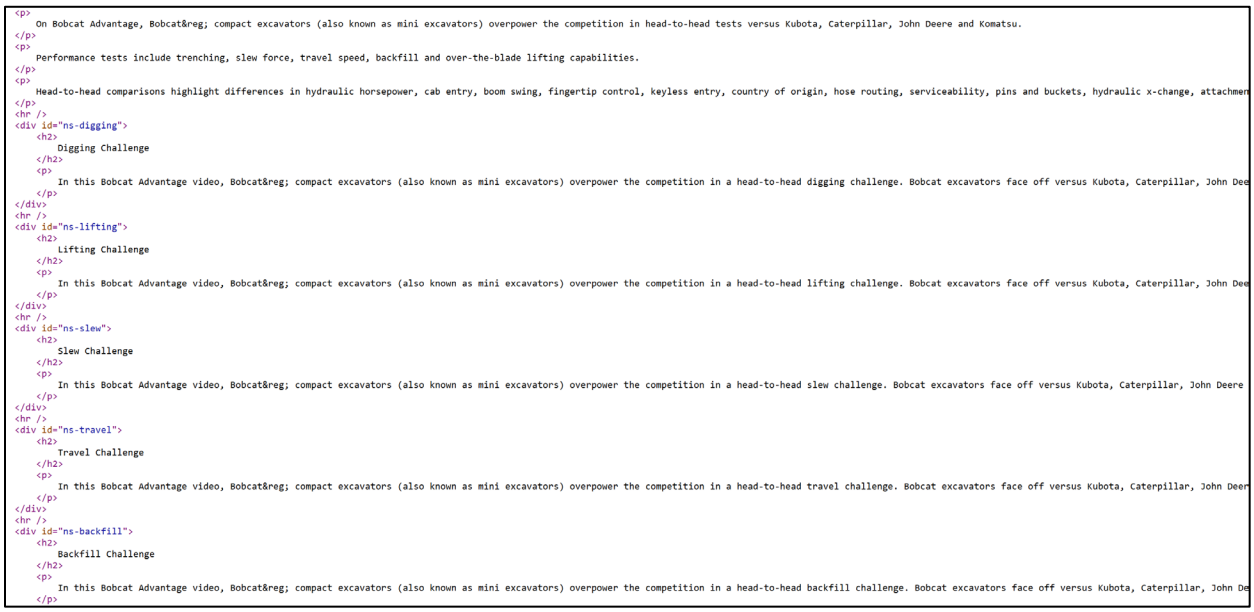
Ex. P3 ("Cab Layout: Bobcat vs. Other Loader Brands," at 2:45–2:52; available at https://www.youtube.com/watch?v=MgE7Uojz460).



Ex. P4 ("New Bobcat Advantage: Bobcat vs. Other Excavator Brands," at 0:10; available at https://www.youtube.com/watch?v=7D6V6JvBKBM).

95. Although the "Bobcat Advantage" site once prominently displayed Doosan's extensive competitive analysis of Caterpillar equipment as shown in the preceding paragraphs, the site today conspicuously resolves to a blank page. *See* https://netdrive.bobcat.com/advantage/

excavators/index.html. But the underlying source files associated with that webpage reveal the now-hidden "head-to-head tests" "versus . . . Caterpillar" that Doosan conducted and previously touted.



```
<p>
    On Bobcat Advantage, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in head-to-head tests versus Kubota, Caterpillar, John Deere and Komatsu.
</p>
<p>
    Performance tests include trenching, slew force, travel speed, backfill and over-the-blade lifting capabilities.
</p>
<p>
    Head-to-head comparisons highlight differences in hydraulic horsepower, cab entry, boom swing, fingertip control, keyless entry, country of origin, hose routing, serviceability, pins and buckets, hydraulic x-change, attachmen
</p>
<hr />
<div id="ns-digging">
    <h2>
        Digging Challenge
    </h2>
    <p>
        In this Bobcat Advantage video, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in a head-to-head digging challenge. Bobcat excavators face off versus Kubota, Caterpillar, John Dee
    </p>
</div>
<hr />
<div id="ns-lifting">
    <h2>
        Lifting Challenge
    </h2>
    <p>
        In this Bobcat Advantage video, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in a head-to-head lifting challenge. Bobcat excavators face off versus Kubota, Caterpillar, John Dee
    </p>
</div>
<hr />
<div id="ns-slew">
    <h2>
        Slew Challenge
    </h2>
    <p>
        In this Bobcat Advantage video, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in a head-to-head slew challenge. Bobcat excavators face off versus Kubota, Caterpillar, John Deere
    </p>
</div>
<hr />
<div id="ns-travel">
    <h2>
        Travel Challenge
    </h2>
    <p>
        In this Bobcat Advantage video, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in a head-to-head travel challenge. Bobcat excavators face off versus Kubota, Caterpillar, John Deer
    </p>
</div>
<hr />
<div id="ns-backfill">
    <h2>
        Backfill Challenge
    </h2>
    <p>
        In this Bobcat Advantage video, Bobcat&reg; compact excavators (also known as mini excavators) overpower the competition in a head-to-head backfill challenge. Bobcat excavators face off versus Kubota, Caterpillar, John De
    </p>
```

Ex. 58 (Source File, https://netdrive.bobcat.com/advantage/excavators/index.html?video=TravelSpeed).

96. Through this extensive competitive intelligence program—that Doosan now conceals from public view—Doosan gained detailed knowledge of Caterpillar's products and technologies and, on information and belief, Caterpillar's patents covering those products and technologies, including the Asserted Patents.

97. On information and belief, Doosan actively induces others to infringe the Asserted Claims at least through its sale of, advertisements for, and product literature for the Accused Products to customers in the United States.

98. On information and belief, Doosan creates and distributes promotional and product literature for the Accused Products that is designed to instruct, encourage, enable, and facilitate

the use, sale, and offer for sale of the Accused Products in a manner that directly infringes the Asserted Claims.

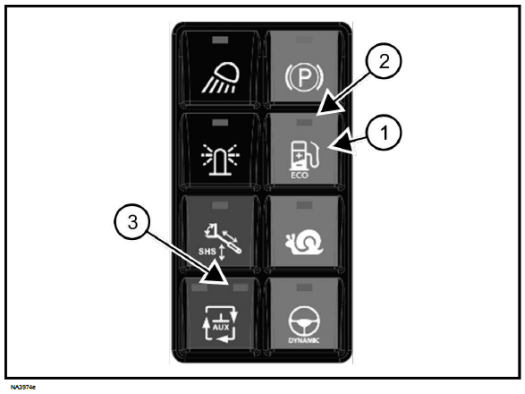
99. For example, Doosan provides operation manuals for certain accused products that tout the benefits of and explain how to use engine and transmission control systems. As one example, the TL923 telehandler operation manual states the following regarding "ECO Mode":

ECO MODE

The ECO Mode switch enables the operator to save fuel by limiting the engine revolutions per minute (rpm) when full rpm is not needed.

ECO Mode Operation

Figure 102



1. Press the ECO Mode switch (Item 1) [Figure 102] to activate the ECO Mode.

   The activation of the ECO mode is only possible at low idle rpm (900 rpm).

2. Press the ECO Mode switch (Item 1) [Figure 102] again to turn OFF.

Ex. 59 (TL923 Operation Manual) at 71.

100. As another example, the operation manual for the E245 excavator describes benefits and operating instructions for "Smart Power Control" features:

Smart Power Control (SPC)

The SPC mode is implemented by engine speed control and pump torque control.

How to access: User Menu → Fuel Efficiency Performance → Default Power Mode Setting

1. Smart engine speed control

   This mode enhances fuel efficiency by reducing engine speed in the low load range to appropriate level through variable engine speed control which is carried out by detecting actual engine load and the operator's control action for heavy load operations, such as boom up and arm crowd.

   - Heavy load: increase engine speed → maximize work performance
   - Low load: decrease engine speed → maximize fuel efficiency

2. Smart pump torque control

   This mode reduces smoke and increases fuel efficiency by reducing unnecessary engine load through optimized control of pump torque in accordance with the engine torque.

DS1900332

Figure 44

Ex. 60 (E245 Operation Manual) at 3-31.

101. Doosan also maintains website pages advertising such features of the Accused Products. For example, Doosan maintains the following website page for the TL923 telehandler, advertising the ECO Mode and Eco-Ride features' benefits as maintaining hydraulic performance without using full engine power and improving fuel efficiency:

Bobcat Build & Quote Search Inventory Find a Dealer North America (EN) Search

EQUIPMENT ATTACHMENTS & IMPLEMENTS PARTS & SERVICE BUYING TOOLS COMPANY

TL923 Features & Benefits

Expand all

Performance 21

Z-Bar Boom Linkage

Standard

High Load Capacity and Lift Height

135 hp Tier 4 Bobcat Engine

V-Drive Hydrostatic Transmission

Load Sense Hydraulic System

Patented Hydraulic Lift System

Heavy-Duty Drivetrain

Four Steering Modes

Five Operation Modes

Five operation modes give you the versatility you need for a wide variety of applications:

ECO Mode: Maintain hydraulic performance without using the engine's full power – allowing you to work with lower rpm, less noise and lower fuel consumption. Easily turn on or off using a control panel button.

Bobcat Build & Quote Search Inventory Find a Dealer North America (EN) Search

EQUIPMENT ATTACHMENTS & IMPLEMENTS PARTS & SERVICE BUYING TOOLS COMPANY

TL923 Features & Benefits

Expand all

Performance 21

Z-Bar Boom Linkage

Standard

High Load Capacity and Lift Height

135 hp Tier 4 Bobcat Engine

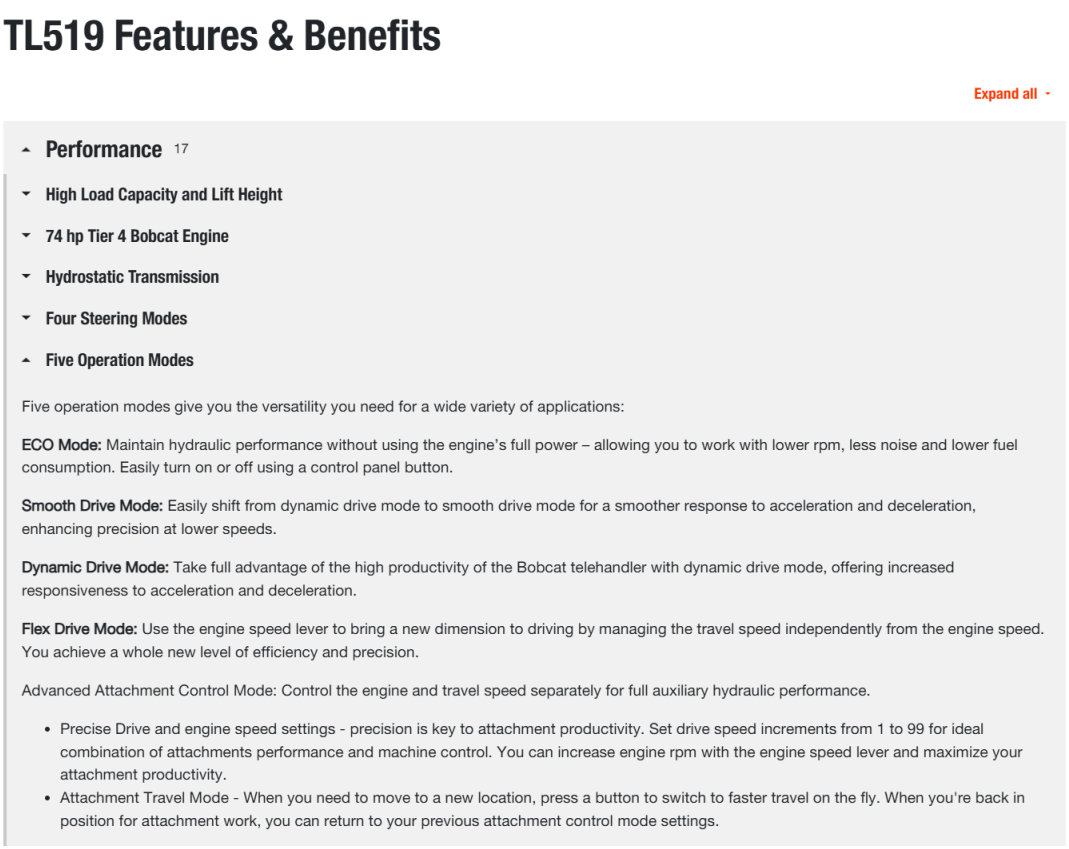
V-Drive Hydrostatic Transmission

The V-Drive transmission on the Bobcat TL923 is a continuously variable hydrostatic transmission. Offering two speed modes, it eliminates the need to stop and manually shift gears, ultimately providing a smoother ride and operator experience. The V-Drive transmission comes standard with features designed to optimize fuel efficiency, including:

- **Stop and Start:** Temporarily stops the engine when idling, automatically restarting once reengaged.
- **Maximum Speed Limiter:** Optimizes fuel consumption by allowing equipment owners to set a maximum speed limit for their operators.
- **ECO-Ride:** Reduces fuel consumption by lowering engine rpm once the travel speed is stabilized.

Ex. 23 (Doosan, TL923 Telehandler, Features & Benefits; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl923).

102. As another example, Doosan maintains the following website page for the TL519 telehandler, advertising the Smooth Drive Mode feature's benefits as providing "a smoother response to acceleration and deceleration[]":



TL519 Features & Benefits

Expand all

Performance 17

- **High Load Capacity and Lift Height**
- **74 hp Tier 4 Bobcat Engine**
- **Hydrostatic Transmission**
- **Four Steering Modes**
- **Five Operation Modes**

Five operation modes give you the versatility you need for a wide variety of applications:

ECO Mode: Maintain hydraulic performance without using the engine's full power – allowing you to work with lower rpm, less noise and lower fuel consumption. Easily turn on or off using a control panel button.

Smooth Drive Mode: Easily shift from dynamic drive mode to smooth drive mode for a smoother response to acceleration and deceleration, enhancing precision at lower speeds.

Dynamic Drive Mode: Take full advantage of the high productivity of the Bobcat telehandler with dynamic drive mode, offering increased responsiveness to acceleration and deceleration.

Flex Drive Mode: Use the engine speed lever to bring a new dimension to driving by managing the travel speed independently from the engine speed. You achieve a whole new level of efficiency and precision.

Advanced Attachment Control Mode: Control the engine and travel speed separately for full auxiliary hydraulic performance.

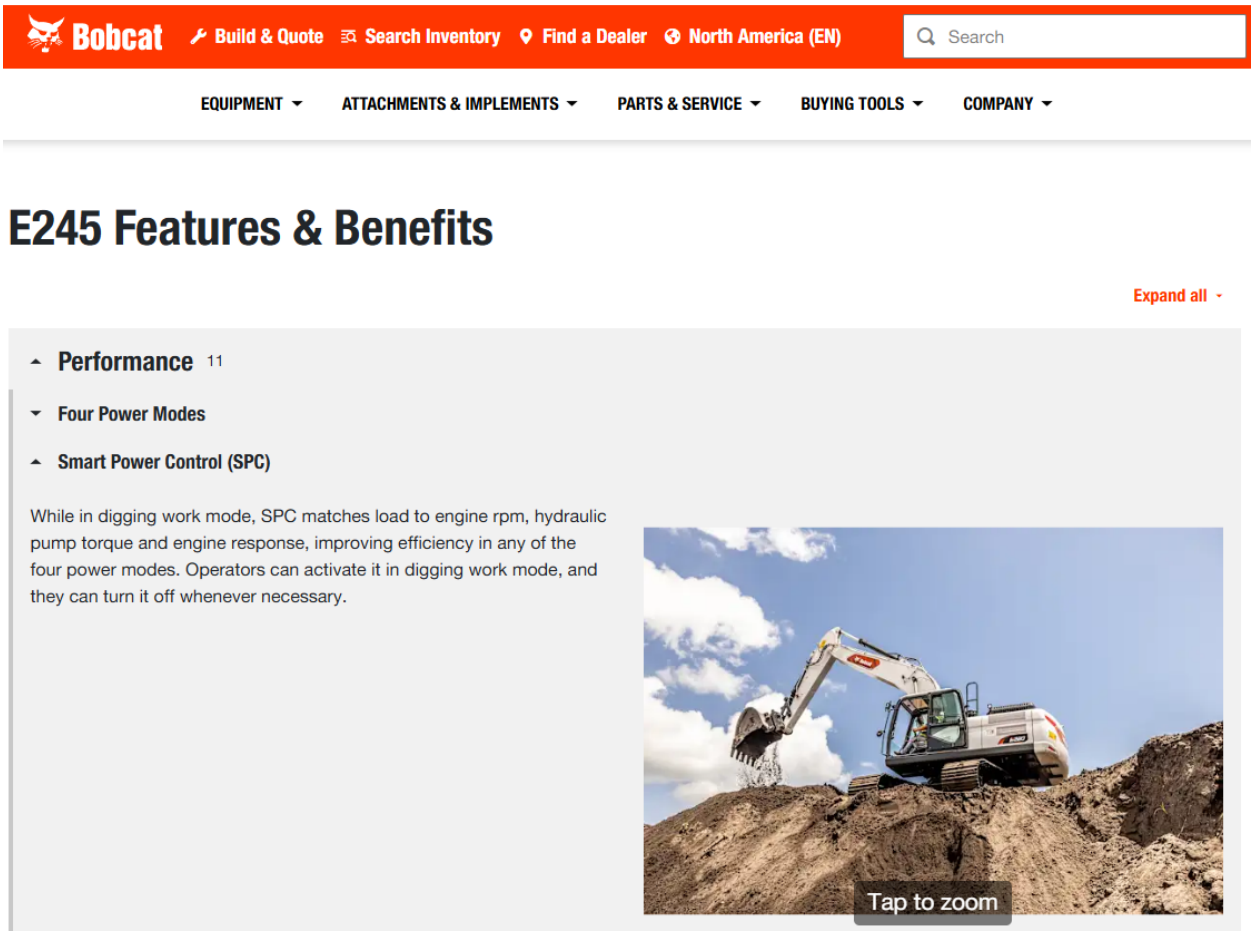
- Precise Drive and engine speed settings - precision is key to attachment productivity. Set drive speed increments from 1 to 99 for ideal combination of attachments performance and machine control. You can increase engine rpm with the engine speed lever and maximize your attachment productivity.
- Attachment Travel Mode - When you need to move to a new location, press a button to switch to faster travel on the fly. When you're back in position for attachment work, you can return to your previous attachment control mode settings.

Ex. 20 (Doosan, TL519 Telehandler, Features & Benefits; available at https://www.bobcat.com/na/en/equipment/telehandlers/tl519).

103. Similarly, Doosan's brochures tout ECO mode as increasing versatility while lowering fuel consumption, and Smooth Drive Mode as providing a smoother drive experience:

Ex. 61 (Doosan, Telehandlers TL519, TL623, TL723, TL923 Brochure) at 6.

104. Similarly, Doosan maintains the following website page for the E245 excavator, advertising the smart power control benefits as matching engine speed and hydraulic pump torque and improving machine efficiency:



Ex. 16 (Doosan, E245 Large Excavator, E245 Features & Benefits, Smart Power Control (SPC); available at https://www.bobcat.com/na/en/equipment/excavators/large-excavators/e245).

105. On information and belief, Doosan provides such promotional materials advertising for the Accused Products and supports its distributors in selling and offering to sell the Accused Products.

106. Doosan's knowledge of infringement of the Asserted Patents, and its continued sale, offer for sale, and/or importation of the Accused Products constitutes infringement as well as active inducement of others to infringe the Asserted Claims.

107. Doosan induces such infringing acts and, on information and belief, knows that its actions would induce direct infringement of the Asserted Patents, or acted with willful blindness.

108. On information and belief, Doosan also contributes to infringement of the Asserted Patents under 35 U.S.C. § 271(c) by providing or selling the Accused Products to others. The Accused Products are specially designed and made for use in an infringing manner and are not staple articles of commerce suitable for any substantial non-infringing use. On information and belief, Doosan continues to engage in these activities with knowledge of the Asserted Patents and knowledge that its acts contribute to infringement.

VI. CLASSIFICATION OF THE INFRINGING PRODUCTS UNDER THE HARMONIZED TARIFF SCHEDULE

109. On information and belief, the Harmonized Tariff Schedule of the United States item numbers under which the infringing heavy machinery and components thereof may be imported into the United States includes at least HTSUS 8427, 8427.10, 8427.20, 8429, 8429.51, 8429.51.10, 8429.51.50, 8429.52, 8429.59, 8430, 8430.50, 8430.50.10, 8430.50.50.

110. This classification is exemplary in nature and not intended to restrict the scope of any exclusion order or other remedy ordered by the Commission.

VII. RELATED PROCEEDINGS

111. On May 26, 2026, Caterpillar Inc. filed a complaint in the United States District Court for the District of Delaware against Doosan Bobcat North America, Inc. for infringement of the Asserted Patents. The alleged unfair acts, or the subject matter thereof, have not been the subject of any other court or agency litigation, or of any arbitration.

VIII. THE DOMESTIC INDUSTRY

112. An industry exists in the United States relating to the Asserted Patents and articles protected by the Asserted Patents, as described herein.

A. Caterpillar's Articles that Practice the Asserted Patents (Technical Prong)

113. Certain of Caterpillar's products practice at least one claim of each Asserted Patent, as follows:

U.S. Patent No.	Exemplary Domestic Industry Products
8,515,637	Including, but not limited to, Caterpillar's dozers (*e.g.*, D1, D2, D3) and wheel loaders (*e.g.*, 926, 930, 938) ("Caterpillar's '637 DI Product")
9,133,837	Including, but not limited to, Caterpillar's compact track loaders (*e.g.*, 255, 265, 275, 285); dozers (*e.g.*, D3); wheel dozers (*e.g.*, 834, 844); landfill compactors (*e.g.*, 836); small wheel loaders (*e.g.*, 926, 930, 938); medium wheel loaders (*e.g.*, 980 XE, 982 XE); large wheel loaders (*e.g.*, 988, 988 XE, 990, 992, 993, 995) ("Caterpillar '837 DI Products")
9,347,554	Including, but not limited to, Caterpillar's compact track loaders (*e.g.*, 255, 265, 275) ("Caterpillar '554 DI Products")
10,059,341	Including, but not limited to, Caterpillar's wheel loaders (*e.g.*, 980 XE, 982 XE) ("Caterpillar's '341 DI Products")

114. The Domestic Industry Products practice the following claims of each Asserted Patent:

U.S. Patent No.	Domestic Industry Claims (Independent Claim(s) Bolded)
8,515,637	**1**, 2–4, **12,** 13–14, **17,** 18
9,133,837	**1**, 4–5, 7, 9–10, **11**, 12–14, **15**, 16–17
9,347,554	**1**, 2–6, **7**, 8–11
10,059,341	**1**, 2–4

115. Claim charts demonstrating that representative Caterpillar '637, '837, '554, and '341 DI Products practice an exemplary claim of each of the Asserted Patents are attached as Exhibits 62, 63, 18, and 64, respectively.

B. United States Economic Activities Relating to the Domestic Industry Products and the Asserted Patents (Economic Prong)

116. A domestic industry exists under 19 U.S.C. § 1337(a)(3), comprised of Caterpillar's domestic investments related to the '637, '837, '554 and '341 DI Products and Caterpillar's exploitation of the Asserted Patents. Caterpillar's U.S. footprint is significant. Caterpillar is based in Irving, Texas and has more than 65 strategic locations across 25 states. Ex. 65 (Caterpillar Public Comment) at 1. Caterpillar employs more than 51,600 people across the United States and purchases more than $10 billion of goods and services annually from U.S. businesses. Ex. 66 (Caterpillar 10-K) at 8. Caterpillar has invested the majority of its capital and research and development expenditures in the United States and has spent over $20 billion on manufacturing and research and development in the U.S. since 2016.

117. Caterpillar is the largest manufacturer and supplier of construction equipment in the United States. Caterpillar manufactures products at numerous facilities in the United States, including in East Peoria and Decatur, Illinois; Athens, Georgia; Clayton and Sanford, North Carolina; North Little Rock, Arkansas; and Victoria, Texas. Caterpillar is a net exporter: since 2016 Caterpillar's exports grew by 75%. Ex. 67 (Caterpillar Press Release; available at https://www.caterpillar.com/en/news/corporate-press-releases/h/cat-invest-future-workforce.html) at 2. Caterpillar's North Little Rock facility, where some of the DI Products are manufactured, is shown below.

Ex. 68 (Construction News; available at https://acppubs.com/CN/article/F0614C8A-caterpillar-s-north-little-rock-arkansas-facility-celebrates-production-milestones).

118. The DI Products are manufactured in the United States. For example, Caterpillar's 930 small wheel loader is manufactured in Clayton, North Carolina; Caterpillar's 982 XE medium wheel loader is manufactured in North Little Rock, Arkansas; and Caterpillar's 255 compact track loader is manufactured in Sanford, North Carolina. These DI Products, pictured below, are described in further detail in Exhibits 62, 63, 18, and 64.

Ex. 69 (Caterpillar's 930 Small Wheel Loader; available at https://www.warrencat.com/new/equipment/wheel-loaders/small-wheel-loaders/930-small-wheel-loader/).

Ex. 70 (Caterpillar's 982 XE Medium Wheel Loader; available at https://www.westernstatescat.com/new-cat-equipment/wheel-loaders/982-xe-wheel-loader/).

Ex. 71 (Caterpillar's 255 Compact Track Loader; available at https://www.cat.com/en_US/news/machine-press-releases/new-cat-255-and-265-compact-track-loaders-deliver-industry-leading-lift-and-tilt-breakout-forces-ssignificantly-increase-torque.html#multimedia-B2YD4j4polRFDHA-poster).

119. Caterpillar's investments include, but are not limited to, significant United States investments in plants, equipment, labor, and capital relating to the DI Products, as well as substantial engineering and research and development activity relating to the Asserted Patents. The

Confidential Declaration of David Falcione (Confidential Exhibit 72) describes just some of Caterpillar's billions of dollars of domestic investments relating to the DI Products. These domestic activities—from R&D and engineering to manufacturing to logistics, sales, and marketing—are vital to Caterpillar's business operations with respect to the DI Products and the Asserted Patents.

IX. RELIEF REQUESTED

120. Complainant respectfully requests that the Commission:

(a) Institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to the Respondents' violations of that section arising from the importation into the United States and/or the sale within the United States after importation of Certain Heavy Machinery and Components Thereof that infringe one or more claims of the Asserted Patents;

(b) Schedule and conduct a hearing pursuant to Section 337(c) for the purposes of: (i) receiving evidence and hearing argument concerning whether there has been a violation of Section 337; and (ii) following the hearing, determining that there has been a violation of Section 337;

(c) Issue a permanent limited exclusion order directed to products manufactured, designed, offered for sale, and/or sold by the Respondents, their subsidiaries, related companies, and/or agents pursuant to 19 U.S.C. § 1337(d), excluding entry into the United States of Certain Heavy Machinery and Components Thereof that infringe one or more claims of the Asserted Patents;

(d) Issue permanent cease and desist orders pursuant to 19 U.S.C. § 1337(f) prohibiting the Respondents, their subsidiaries, related companies, agents, and/or other affiliates from conducting any of the following activities in the United States: importing,

selling, marketing, advertising, distributing, offering for sale, transferring (except for exportation), soliciting United States agents or distributors, or aiding and abetting other entities in the importation, sale for importation, sale after importation, transfer (except for exportation), or distribution of Certain Heavy Machinery and Components Thereof that infringe one or more claims of the Asserted Patents;

(e) Impose a bond upon importation, sale, or transfer of Certain Heavy Machinery and Components Thereof that infringe one or more claims of the Asserted Patents during the 60-day review period pursuant to 19 U.S.C. § 1337(j); and

(f) Issue other and further relief as the Commission deems just and proper under the law, based on the facts determined by the investigation and the authority of the Commission.

Dated: May 26, 2026

Respectfully submitted,

/s/ Paul F. Brinkman, P.C.

Paul F. Brinkman, P.C.
Gregg F. LoCascio, P.C.
KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, NW
Washington, DC 20004
Tel.: (202) 389-5000
Fax: (202) 389-5200

Ryan Kane, P.C.
Mark C. McLennan
N. Kaye Horstman
Mara L. Greenberg
Annie Chan
Brenda Lim
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
Tel.: (212) 446-4800
Fax: (212) 446-4900

Michael DelRossi
KIRKLAND & ELLIS LLP
401 West 4th Street
Austin, Texas 78701
Tel.: (512) 678-9100
Fax: (512) 678-9101

George Manley
KIRKLAND & ELLIS LLP
200 Clarendon Street
Boston, MA 02116
Tel.: (617) 385-7500
Fax: (617) 385-7501

Email: paul.brinkman@kirkland.com

Counsel for Complainant Caterpillar Inc.

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of **CERTAIN HEAVY MACHINERY AND COMPONENTS THEREOF**	**Investigation No. 337-TA-____**

VERIFICATION OF THE COMPLAINT OF CATERPILLAR INC. UNDER SECTION 337 OF THE TARIFF ACT OF 1930

I, David Falcione, am a Senior Manager, Engineering, at Caterpillar Inc., and am duly authorized to verify this complaint on behalf of complainant. I have read the complaint and am aware of its contents. To the best of my knowledge, information, and belief, and based on a reasonable inquiry under the circumstances, I hereby certify that:

1. The allegations contained in the complaint are well-grounded in fact and have evidentiary support, or are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery;

2. The claims and other legal contentions set forth in the complaint are warranted by existing law or by a good faith, non-frivolous argument for extension, modification, or reversal of existing law, or by the establishment of new law; and

3. The complaint is not being filed for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation.

Executed in Peoria, IL on this 26th day of May 2026.

David Falcione