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UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

**CERTAIN WINDSHIELD WIPERS AND
COMPONENTS THEREOF**

Inv. No. 337-TA-928

**Inv. No. 337-TA-937
(Consolidated)**

**INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND
RECOMMENDED DETERMINATION ON REMEDY AND BOND**

Administrative Law Judge Thomas B. Pender

(October 22, 2015)

Pursuant to the Notice of Investigation and Rule 210.42(a) of the Rules of Practice and Procedure of the United States International Trade Commission, this is my Initial Determination in the matter of *Certain Windshield Wipers and Components Thereof*, Investigation Nos. 337-TA-928 and 337-TA-937 (consolidated).

PUBLIC VERSION

TABLE OF CONTENTS

	Page
I. INTRODUCTION.....	1
A. <u>Procedural Background</u>	1
B. <u>The Parties</u>	2
C. <u>The Asserted Patents</u>	3
D. <u>Products at Issue</u>	7
1. <u>Domestic Industry Products</u>	7
2. <u>Accused Products</u>	8
II. JURISDICTION AND IMPORTATION	8
A. <u>Importation</u>	8
B. <u>Jurisdiction</u>	9
1. <u>Subject Matter Jurisdiction</u>	9
2. <u>Personal Jurisdiction</u>	10
3. <u>In Rem Jurisdiction</u>	10
III. DOMESTIC INDUSTRY	10
A. <u>Economic Prong</u>	11
1. <u>Legal Standards</u>	11
2. <u>Parties Arguments</u>	12
a. <u>Valeo</u>	12
b. <u>Trico</u>	14
c. <u>Discussion</u>	15
(i) <u>The Relevant Domestic Industry Includes the Entire Wiper System.</u>	15
(ii) <u>Significance of Valeo’s Employment of Labor or Capital Under Subsection (B).</u>	18

PUBLIC VERSION

(iii)	<u>Significance of Valeo’s Investment in Plant and Equipment Under Subsection (A)</u>	20
(iv)	<u>Conclusion</u>	22
B.	<u>Technical Prong</u>	23
1.	<u>Legal Standards</u>	23
2.	<u>Parties Arguments</u>	24
a.	<u>Valeo</u>	24
b.	<u>Trico</u>	24
c.	<u>Discussion</u>	24
IV.	LEVEL OF ORDINARY SKILL IN THE ART	25
V.	CLAIM CONSTRUCTION	26
A.	<u>Legal Standards</u>	26
B.	<u>Disputed Terms</u>	27
C.	<u>Discussion</u>	28
1.	<u>“Receiving Portion,” “Mid-Portion,” “First Part,” “Second Part”</u>	28
2.	<u>“Locking Tongue(s)”</u>	30
3.	<u>“Receiving Members,” “Blade Support Element,” “Intermediate Element,” and “Back”</u>	31
4.	<u>“The End Portion of the Wiper Arm and the Connecting Element Can Pivot with respect to Each Other About the First Location <i>Until</i> Said Securing Portion Secures the Second Part of the End Portion of the Wiper Arm”</u>	32
VI.	INFRINGEMENT	33
A.	<u>Legal Standards</u>	33
1.	<u>Direct Infringement</u>	33
a.	<u>Literal Infringement</u>	33
b.	<u>Doctrine of Equivalents</u>	34

PUBLIC VERSION

2.	<u>Indirect Infringement</u>	34
a.	<u>Induced Infringement</u>	34
b.	<u>Contributory Infringement</u>	34
B.	<u>'798 Patent</u>	35
1.	<u>Asserted Claims</u>	35
a.	<u>Claim 1</u>	35
(i)	<u>Coupling Section for Pinch Tab Wiper Arm</u>	36
(ii)	<u>Simple Pivoting Motion</u>	39
(iii)	<u>Toe-to-Heel and Heel-to-Toe Assembly Configurations</u> ...	40
b.	<u>Claim 7</u>	45
c.	<u>Claim 10</u>	50
d.	<u>Claim 12</u>	53
e.	<u>Claim 15</u>	54
2.	<u>Indirect Infringement</u>	55
C.	<u>'044 Patent</u>	55
1.	<u>Asserted Claims</u>	55
2.	<u>Indirect Infringement</u>	59
3.	<u>Exhaustion and Permissible Repair</u>	60
VII.	INVALIDITY	61
A.	<u>Legal Standards</u>	61
1.	<u>Invalidity</u>	61
2.	<u>§ 102(b) Anticipation</u>	61
a.	<u>On-Sale Bar</u>	62
b.	<u>Public Use</u>	62
B.	<u>Summary of the Parties' Positions</u>	63

PUBLIC VERSION

C.	<u>Gen II Connector</u>	64
1.	<u>Scope of Asserted Claims</u>	64
2.	<u>Structure of the Gen II Connector</u>	65
D.	<u>Gen IIB Connector</u>	71
1.	[]	72
2.	[].....	74
3.	<u>Other Pre-Critical Date Evidence</u>	77
VIII.	CONCLUSIONS OF LAW	77
IX.	INITIAL DETERMINATION AND ORDER	78
X.	RECOMMENDED DETERMINATION ON REMEDY AND BOND	79
A.	<u>Limited Exclusion Order</u>	79
B.	<u>Cease and Desist Order</u>	80
C.	<u>Bond During Presidential Review Period</u>	83

PUBLIC VERSION

Table of Abbreviations

CDX	Complainants' Demonstrative Exhibit
CIB	Complainants' Initial Post-Hearing Brief filed August 7, 2015
CRB	Complainants' Reply Post-Hearing Brief filed August 21, 2015
CX	Complainants' Exhibit
CFF	Complainants' Proposed Findings of Fact filed August 7, 2015
Dep.	Deposition
DWS	Direct Witness Statement (Including Revised Direct Witness Statements)
JX	Joint Exhibit
RDX	Respondents' Demonstrative Exhibit
RFF	Respondents' Response to Complainants' Proposed Findings of Fact filed August 21, 2015
RIB	Respondents' Initial Post-Hearing Brief filed August 7, 2015
RRB	Respondents' Corrected Reply Post-Hearing Brief filed August 24, 2015
RWS	Rebuttal Witness Statement
RX	Respondents' Exhibit
Tr.	Transcript

PUBLIC VERSION

I. INTRODUCTION

A. Procedural Background

On July 25, 2014, Complainants Valeo North America, Inc. and Delmex de Juarez S. de R.L. de C.V. (collectively, “Valeo”) filed a complaint against Respondents Federal-Mogul Corp., Federal-Mogul Vehicle Motorparts Corporation (formerly known as Federal-Mogul Vehicle Component Solutions, Inc.), and Federal-Mogul S.A. (collectively, “Federal-Mogul”), asserting a violation of section 337(a)(1)(B) by reason of infringement of one or more claims of U.S. Patent Nos. 7,891,044 (“the ’044 patent”), 7,937,798 (“the ’798 patent”), and 8,220,106 (“the ’106 patent”). By publication in the Federal Register on September 2, 2014, the Commission instituted Investigation No. 337-TA-928,

to determine whether there is a violation [by Federal-Mogul] of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain windshield wipers and components thereof by reason of infringement of one or more of claims 1, 2, 7, 8, 10, 11, 13, 14, 18, 19, 31, and 32 of the ’044 patent; claims 1-16 of the ’798 patent; and claims 1, 12, 13, 15, and 17-19 of the ’106 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

79 Fed. Reg. 52041-2 (Sept. 2, 2014).

On October 15, 2014, Valeo filed another complaint against Respondents Trico Products Corporation, Trico Products, and Trico Componentes SA de CV (collectively, “Trico”), asserting a violation of section 337(a)(1)(B) by reason of infringement of one or more claims of the ’044 patent and the ’798 patent. By publication in the Federal Register on November 21, 2014, the Commission instituted Investigation No. 337-TA-937,

to determine whether there is a violation [by Trico] of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain windshield wipers and components thereof by reason of infringement of one or more of claims 1, 2, 5, 7, 8,

PUBLIC VERSION

10-14, 18, 19, and 31-33 of the '044 patent and claims 1-12, 14, and 15 of the '798 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

79 Fed. Reg. 69525-6 (Nov. 21, 2014). In addition, the Commission designated me as the presiding Administrative Law Judge ("ALJ") and authorized me to consolidate Investigation No. 337-TA-928 and Investigation No. 337-TA-937 if I deemed it appropriate. *See id.* Accordingly, on December 9, 2014, I issued Order No. 8 consolidating Investigation No. 337-TA-928 and Investigation No. 337-TA-937. *See* Order No. 8, Inv. No. 337-TA-928 (U.S.I.T.C. Dec. 9, 2014).

On May 19, 2015, Valeo and Federal-Mogul reached a settlement agreement and filed a joint motion to terminate the Federal-Mogul Respondents from the consolidated investigations, which I granted on June 5, 2015. *See* Order No. 24, Inv. No. 337-TA-928 (U.S.I.T.C. June 5, 2015). The Trico Respondents remained in the consolidated investigations and an evidentiary hearing was held during the week of July 20, 2015. On July 22, 2015, Valeo filed an unopposed motion for partial termination of the investigation as to claims 2, 5, 7, 10, 13, 18, 19, and 31 of the '044 patent, and claims 2-6, 8, 9, 11, and 14 of the '798 patent, which I granted on September 3, 2015. *See* Order No. 41, Inv. No. 337-TA-928 (U.S.I.T.C. Sept. 3, 2015). Claims 1, 8, 11, 12, 14, and 32-33 of the '044 patent and claims 1, 7, 10, 12, and 15 of the '798 patent remain at issue in the consolidated investigations ("Asserted Claims").¹

B. The Parties

Complainant Valeo North America, Inc. is a Delaware Corporation with its principal place of business at 150 Stephenson Highway, Troy, Michigan, 48083. (Complaint at ¶ 5, Inv.

¹ The '106 patent was not asserted against Trico and is no longer at issue in the consolidated investigations following Federal-Mogul's settlement agreement with Valeo. The "Asserted Patents" hereinafter means the '044 patent and the '798 patent.

PUBLIC VERSION

No. 337-TA-937 (U.S.I.T.C. Oct. 15, 2014).) Complainant Delmex de Juarez S. de R.L. de C.V., is a Corporation organized under the laws of Mexico, with its principal place of business at Avenida de las Torres y calle Intermex # 1681, Parque Industrial Intermex, Cd. Juarez, Chihuahua 32640. *See id.*

Respondent Trico Products Corporation is a corporation organized under the laws of New York with its principal place of business in Rochester Hills, Michigan. (*See* Trico Response to Complaint at ¶ 11, Inv. No. 337-TA-937 (U.S.I.T.C. Dec. 8, 2014).) Respondent Trico Componentes SA de CV is a corporation with a principal place of business in Matamoros, Mexico. *See id.* at ¶ 13. Valeo’s complaint also names Trico Products as a Respondent (*see* Complaint at ¶ 12, Inv. No. 337-TA-937 (U.S.I.T.C. Oct. 15, 2014)), but Trico denies such allegation and responds that “Trico Products is not a legal entity apart from Trico Products Corporation.” (*See* Trico’s Response to Complaint, at ¶ 12, Inv. No. 337-TA-937 (U.S.I.T.C. Dec. 8, 2014).)

C. The Asserted Patents

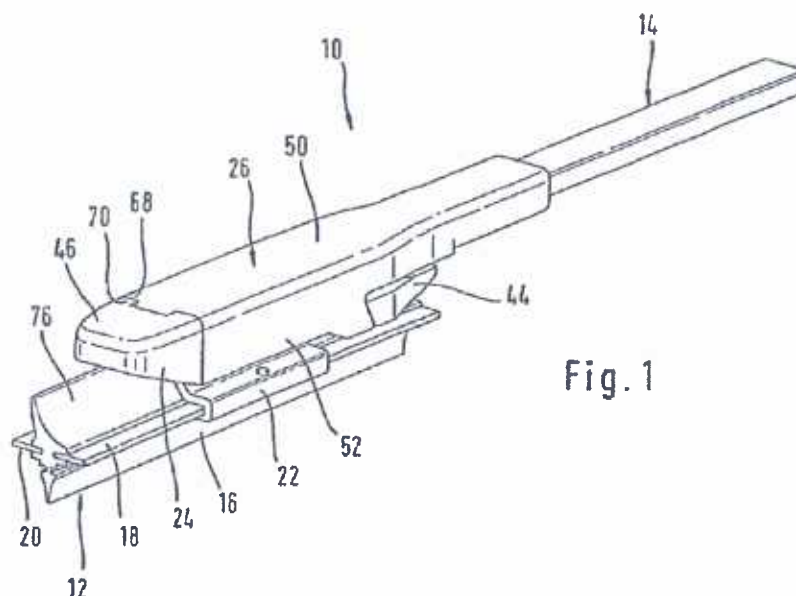
The Asserted Patents are related and share essentially the same specification. The ’044 patent was filed on November 21, 2003 and issued on February 22, 2011. The ’044 patent claims priority to German applications DE 102 54 978, filed November 26, 2002, and DE 103 23 997, filed May 27, 2003. The ’798 patent was filed on May 12, 2010 and issued on May 10, 2011 from a continuation application to the patent application which issued as the ’044 patent.²

² The effective date of the asserted patents pre-dates the America Invents Act (“AIA”) enacted by Congress on September 16, 2011. The pre-AIA versions of the patent statutes (35 U.S.C. § 1 *et seq.*) cited herein, apply to the asserted patents.

PUBLIC VERSION

The Asserted Patents disclose “a device and a method for releasably connecting a wiper blade to a drivable wiper arm.” See JX-1, '044 patent at 1:8-9; JX-2, '798 patent at 1:16-17.

Figure 1 of the asserted patents shows an embodiment of the invention:



The asserted patents describe Figure 1 as follows:

FIG. 1 shows a device 10 according to the invention for releasably connecting a wiper blade 12, shown in part, to a drivable wiper arm 14 which is likewise shown in part. The wiper blade 12 has a wiper strip 16 which faces the windscreen to be wiped (not shown) and comprises two strip-like elongate support elements 18, 20, a slide element 22 which is connected to the support elements 18, 20, and a connecting element 24 which is arranged on the slide element 22 in a manner such that it can pivot. The connecting element 24 serves for connection to a coupling section 26 on the wiper arm 14.

JX-1, '044 patent at 6:7-17; JX-2, '798 patent at 5:65-6:8.

The connecting element 24 and the coupling section 26 (shown in a coupled or assembled position in Figure 1 above) are separately described in Figures 2 and 4 of the asserted patents, as reproduced below:

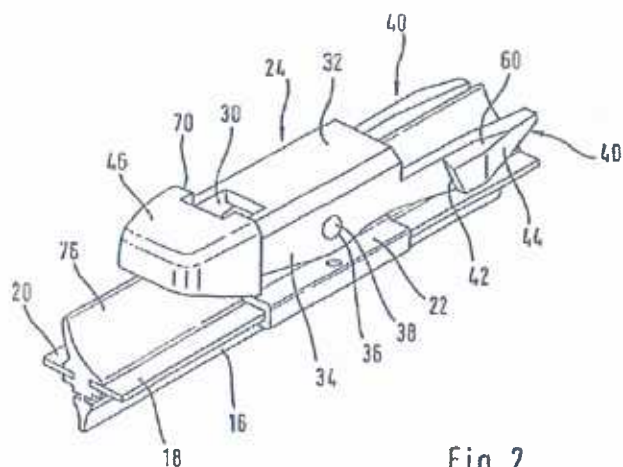


Fig. 2

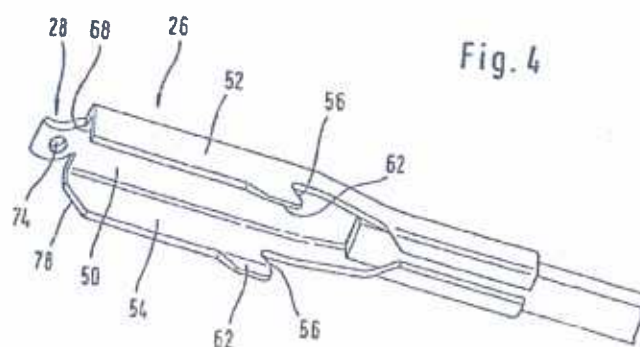


Fig. 4

In addition, the asserted patents describe the assembly of the claimed device through a pivoting operation, as shown in Figures 5 and 6 below:

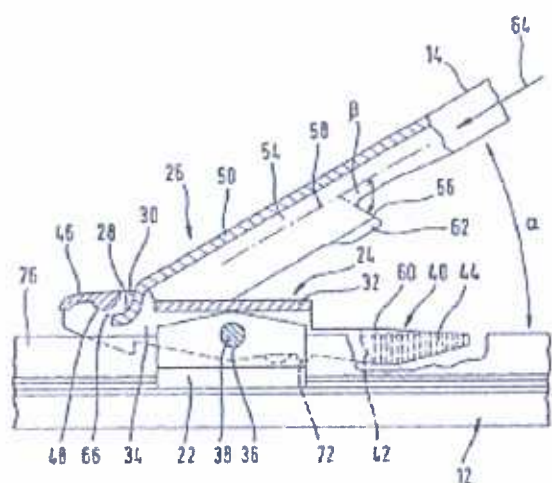


Fig. 5

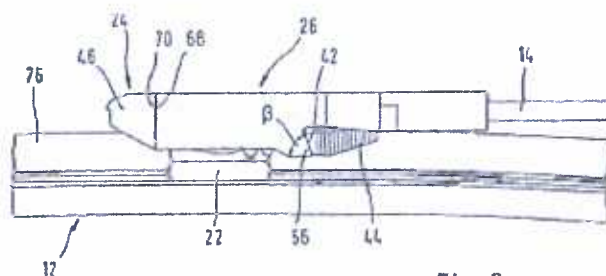


Fig. 6

The asserted patents further explain:

For assembly of the coupling section **26** to the connecting element **24**, in order to reach a preassembly position which is shown in FIG. 5, the insertion section **28** is inserted into the seat **30** in a substantially rectilinear manner in the direction of the arrow **64**. In this preassembly position, the longitudinal axis of the wiper arm **14** and the longitudinal axis of the connecting element **24** or of the wiper blade **12** enclose an angle α which may lie in the range from approximately 10 to 100°. In the example of embodiment shown in FIG. 5, the angle α has a value of approximately 40°. In order to reach the final assembly position, which is shown in FIG. 1 and FIG. 6, the wiper arm **14** and the connecting section **24** are pivoted

PUBLIC VERSION

onto one another about the contact area 66 in which the insertion section 28 bears against the region 48 of the seat 30. On account of the complementary design of the insertion section 28 and the region 48, the pivoting operation is carried out to a limited extent. Shortly prior to reaching the final assembly position, the bevelled sides 62 of the coupling section 26 and the correspondingly bevelled sides 60 of the locking tongues 40 meet one another in such a way that the locking tongues 40 are pivoted elastically in a direction facing one another. Upon reaching the final assembly position, the locking tongues 40 snap behind the locking edges 56 of the legs 52, 54 of the coupling section 26 in a direction facing away from one another. As a result, the coupling section 26 is permanently held on the connecting element 24 in the final assembly position. In the final assembly position, the coupling section 28 bears against the region 48 of the connecting element 24 over a large part of its surface. Furthermore, the end side 68 of the coupling section 26 which faces the head area 46 of the connecting element 26 bears against a bearing edge 70 of the connecting element which corresponds thereto.

JX-1, '044 patent at 7:11-41; JX-2, '798 patent at 7:1-32.

A *Markman* hearing was held in this investigation on March 2, 2015, and on March 30, 2015, I issued Order No. 12 construing the disputed terms of the Asserted Patents as follows:

Term	Construction
“actuating sections” ('044 patent, claim 13)	“sections of the locking tongues that can be pressed towards one another to release the connecting element from the wiper arm”
“locking edges” ('044 patent, claims 11 and 12)	“edges shaped to interlock and to fix the connecting element and the coupling section in place relative to one another”
“locking sections” ('044 patent, claims 10 and 31)	“sections shaped to interlock and to fix the connecting element and the coupling section in place relative to one another”
“securing section(s)” ('044 patent, claims 1, 10, 31, and 32)	“section(s) configured to fix the connecting element and the coupling section in place relative to one another”

PUBLIC VERSION

Term	Construction
“securing portion” (’798 patent, claims 1, 2, 5, and 6)	“portion configured to fix the connecting element and the coupling section in place relative to one another”
“device” (’044 patent, claims 1, 2, 5, 7, 8, 10-14, 18, 19, and 31-33)	plain and ordinary meaning; no construction required
“wiper blade assembly” (’798 patent, claims 1-12, 14, and 15)	“an assembly of components as claimed”
“slide element which is connected to the support element” (’044 patent, claims 1, 18, 19)	“the element that is attached to the support element and that is capable of moving along the support element [by sliding]”
“end portion” (’798 claims 1, 16)	“the coupling section of the wiper arm of the device”
“seat” (’044 claims 1, 8)	“the structure of the connecting element that receives and pivotally bears against the insertion section”

Further, the parties agreed that the claim term “device” in the ’044 patent includes a “wiper arm.” *See* Order No. 12, Inv. No. 337-TA-928, at 32 (U.S.I.T.C. Mar. 30, 2015). However, with respect to the claim term “wiper blade assembly,” I found that it did not include a “wiper arm.” *See id.* at 34-39 (Mar. 30, 2015).

D. Products at Issue

1. Domestic Industry Products

The domestic industry products are automotive windshield wipers, including parts or components thereof, *e.g.*, wiper blades and/or wiper arms. (*See* CX-11C at 9, ¶ 15.) Valeo alleges that its Ultimate® 900-20-7B Wiper Blade (CPX-17), Rain-X® Expert Fit™ B-24-2 Wiper Blade (CPX-18), and Peak Optix® OTV221 Wiper Blade (CPX-19) practice one or more claims of the Asserted Patents. (*See* CX-713C, Trumper DWS at Q/As 14, 368-479.) Internally,

PUBLIC VERSION

Valeo referred to the specific connector used in the domestic industry products as the Gen IIB connector. (*See* CIB at 113.)

2. Accused Products

The accused products are wiper blades for automotive windshield wipers, including, Trico Chill Winter Blade 37-2413USA (CPX-8), Trico ExactFit Rear Blade 12-I5US (CPX-9),³ Trico Force Blade 25-180A (CPX-11), Trico Ice Blade 35-180 (CPX-12), Trico Sentry Blade 32-220 (CPX-14), Trico Tech Blade 19-220WD5 (CPX-15), Trico ExactFit Blade EFB4517L (CPX-22), and Trico NeoForm Blade 16-2113USA (CPX-23) (collectively, the “Accused Products”). (*See* CX-713C, Trumper DWS at Q/As 11, 41-361.)

II. JURISDICTION AND IMPORTATION

In order to have the power to decide a case, a court or agency must have both subject matter jurisdiction and jurisdiction over either the parties or the property involved. 19 U.S.C. § 1337; *Certain Steel Rod Treating Apparatus and Components Thereof*, Inv. No. 337-TA-97, Commission Memorandum Opinion, 215 U.S.P.Q. 229, 231 (1981).

A. Importation

“Trico admits that wiper blades and components thereof are assembled and packaged in Mexico for importation and sale in the U.S.” (Trico’s Response to Complaint at ¶ 14, Inv. No. 337-TA-937 (U.S.I.T.C. Dec. 8, 2014).) But Trico also argues that it operates under a “maquiladora” arrangement and that the shipment of Trico’s components and accused products

³ Trico states that “Order No. 36 barred Valeo from making any infringement claims against Trico’s Exact Fit 12-I5US rear blade having the 836 adapter.” (*See* RIB at 10.) I disagree. Order No. 36 prevents Valeo from asserting infringement of the ’044 patent against Trico’s Exact Fit 12-15US rear blade having the 836 adapter (CPX-9); but the ’798 patent was not the subject of Trico’s underlying motion *in limine*. *See* Order No. 36, Inv. No. 337-TA-928, at 2 (U.S.I.T.C. July 16, 2015). Thus, Valeo is not barred from asserting infringement of the ’798 patent against Trico’s Exact Fit 12-I5US rear blade having the 836 adapter (CPX-9).

PUBLIC VERSION

between one Trico facility in Mexico and another Trico facility in Texas is not “importing” within the meaning of 19 U.S.C. § 1337. (*See* RIB at 14-15.) Trico cites *LG Semicon* in support of its position. (*See id.* (citing *LG Semicon Co. v. U.S.*, Nos. Slip Op. 99-144, 98-10-03076, 1999 WL 1458844 (Ct. Intl. Trade Dec. 30, 1999).⁴) According to Trico, products sold to the maquiladora are treated as U.S. sales for purposes of calculating a dumping margin. (*See id.* at 15.)

I disagree that *LG Semicon* helps Trico’s position. To the contrary, the *LG Semicon* decision found that a maquiladora is a “foreign business” and that goods manufactured therein “would likely be exported to the United States through the foreign business’ existing maquiladora mechanism.” *See id.* at *7. In other words, the goods are imported into the United States from Mexico. Certainly, *LG Semicon* does not support Trico’s position that products manufactured in Trico’s Mexican facility and shipped to the United States, do not satisfy the importation requirement under 19 U.S.C. § 1337.

The maquiladora arrangement may affect the customs duty of Trico’s Accused Products but does not change their status as imported goods. Accordingly, I find that the importation requirement is satisfied.

B. Jurisdiction

1. Subject Matter Jurisdiction

Section 337 confers subject matter jurisdiction on the International Trade Commission to investigate, and if appropriate, to provide a remedy for, unfair acts and unfair methods of

⁴ “A maquiladora is defined in the administrative record as ‘a Mexican corporation operating under a special customs regime which allows the corporation to temporarily import into Mexico duty-free, raw material, equipment, machinery, replacement parts, and other items needed for the assembly or manufacture of finished goods for subsequent export.’” *LG Semicon*, 1999 WL 1458844, *6.

PUBLIC VERSION

competition in the importation, the sale for importation, or the sale after importation of articles into the United States. *See* 19 U.S.C. §§ 1337(a)(1)(B) and (a)(2). Valeo alleges in the Complaint that Trico has violated Section 337 in the importation and sale of products that infringe the Asserted Patents. (*See* CX-011C, Complaint at ¶¶ 1-2.) As discussed above, I find that the importation requirement is satisfied. Accordingly, I find the Commission has subject matter jurisdiction over this Investigation under 19 U.S.C. § 1337. *Amgen, Inc. v. U.S. Int'l Trade Comm'n*, 902 F.2d 1532, 1536 (Fed. Cir. 1990).

2. Personal Jurisdiction

Trico has fully participated in the Investigation by, among other things, participating in discovery, participating in the evidentiary hearing, and filing pre-hearing and post-hearing briefs. Accordingly, I find Trico has submitted to the jurisdiction of the Commission. *See Certain Miniature Hacksaws*, Inv. No. 337-TA-237, Pub. No. 1948, Initial Determination at 4, 1986 WL 379287 (U.S.I.T.C., October 15, 1986) (unreviewed by Commission in relevant part).

3. In Rem Jurisdiction

The Commission also has *in rem* jurisdiction over the products at issue by virtue of the above finding that the Accused Products have been imported into the United States. *See Sealed Air Corp. v. United States Int'l Trade Comm'n*, 645 F.2d 976, 985 (C.C.P.A. 1981).

III. DOMESTIC INDUSTRY

In a patent-based complaint, a violation of Section 337 can be found “only if an industry in the United States, relating to the articles protected by the patent ... concerned, exists or is in the process of being established.” 19 U.S.C. § 1337(a)(2). Under Commission precedent, this “domestic industry requirement” of section 337 consists of an economic prong and a technical prong. *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm’n Op. at 12-14 (May 16, 2008). The complainant bears the burden of establishing that

PUBLIC VERSION

the domestic industry requirement is satisfied. *See Certain Set-Top Boxes and Components Thereof*, Inv. No. 337-TA-454, Initial Determination at 294 (June 21, 2002) (unreviewed by Commission in relevant part).

A. Economic Prong

1. Legal Standards

The economic prong of the domestic industry requirement is defined in subsection (a)(3) of Section 337 as follows:

- (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark or mask work concerned --
 - (A) Significant investment in plant and equipment;
 - (B) Significant employment of labor or capital; or
 - (C) Substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). The economic prong of the domestic industry requirement is satisfied by meeting the criteria of any one of the three factors listed above.

Pursuant to Section 337(a)(3)(A) and (B), “a complainant’s investment in plant and equipment or employment of labor or capital must be shown to be “significant” in relation to the articles protected by the intellectual property right concerned.” *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm’n Op. at 26 (February 17, 2011). The Commission has emphasized that “there is no threshold test for what is considered ‘significant’ within the meaning of the statute.” *Certain Kinesiotherapy Devices and Components Thereof*, Inv. No. 337-TA-823, Comm’n Op. at 33 (July 12, 2013). Instead, the determination is made by “an examination of the facts in each investigation, the article of commerce, and the realities of the marketplace.” *Certain Male Prophylactic Devices*, Inv. No.

PUBLIC VERSION

337-TA-546, Comm’n Op. at 39 (Aug. 1, 2007). Qualitative and quantitative factors must both be considered in evaluating whether the economic prong is satisfied. *See Lelo Inc. v. ITC*, 786 F.3d 879, 883-85 (Fed. Cir. 2015).

Section 337(a)(3)(C) provides for domestic industry based on “substantial investment” in the enumerated activities, including licensing of a patent. *See Certain Digital Processors and Digital Processing Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-559, Initial Determination at 88 (May 11, 2007) (“Certain Digital Processors”). Mere ownership of the patent is insufficient to satisfy the domestic industry requirement. *Certain Digital Processors* at 93 (citing the Senate and House Reports on the Omnibus Trade and Competitiveness Act of 1988, S. Rep. No. 71). However, entities that are actively engaged in licensing their patents in the United States can meet the domestic industry requirement. *Certain Digital Processors* at 93.

2. Parties Arguments

a. Valeo

Valeo argues that the economic prong of the domestic industry requirement is satisfied because Valeo has made both qualitatively and quantitatively significant investments in plant and equipment and employment of labor or capital, as well as qualitatively and quantitatively substantial investments in research and development related to its domestic industry products. (See CIB at 113.) Specifically, Valeo values its U.S. investments related to its domestic industry products at over [] **each year** (or [] **from 2012 through the filing of the complaint**). (See *id.*) Valeo obtains that value by considering the domestic industry to include “wiper systems utilizing a Gen IIB connector (i.e., the motor, linkage, arm, Gen IIB connector, and blade) that it sells to OEMs” (original equipment manufacturers). (See *id.* at 114 (citing CX-714C, Mulhern DWS at Q/As 50-69).) Valeo recognizes that the wiper system includes more

PUBLIC VERSION

components than its patented Gen IIB connector or aftermarket wiper blades (identified as Valeo's domestic industry products in Section I(D)(1), *supra*), but Valeo reasons that most of its sales are through the OEM channel and that customers in the OEM marketplace require the entire wiper system, not individual components. (*See id.* at 114-15 (citing CX-710C, Moreman DWS at Q/A 38; CX-714C, Mulhern DWS at Q/A 50).)

Valeo's domestic industry expert, Carla S. Mulhern, estimated Valeo's labor investments in the United States, relating to the design, development, and testing of wiper systems including a Gen IIB connector, at approximately [] (*See id.* at 118 (citing CX-714C, Mulhern DWS at Q/A 114; CX-255C; CX-710C, Moreman DWS at Q/As 77-78).) Valeo's expert testified that these investments relate to the labor expenses of [] Valeo employees located in the U.S. and involved in the design, development, and testing of wiper systems over the period from 2012 through the filing of the complaint, including system engineers, test technicians, software design engineers, and an R&D contractor. (*See id.* at 118 (citing CX-714C, Mulhern DWS at Q/As 99-107).) Valeo's expert used a project-based allocation factor to estimate the share of labor costs attributable to the domestic industry products. (*See* CX-714C, Mulhern DWS at Q/As 109-10.)

In addition, Valeo's expert quantified approximately [] a year, between 2012 and the filing of the complaint, on quality control labor expenses attributable to the wiper systems including the Gen IIB connector. (*See id.* at 119-20 (citing CX-714C, Mulhern DWS at Q/A 124).) That amount was calculated based on the total labor expenses incurred with respect to Valeo's [] quality control employees (including [

] and then applying an allocation factor based on the Gen IIB share of wiper systems

PUBLIC VERSION

sold to OEMs. (*See id.* at 120 (citing CX-714C, Mulhern DWS at Q/As 118-24; CX-710C, Moreman DWS at Q/As 89-93; CX-259C).)

Finally, Valeo argues that it makes numerous qualitatively significant and substantial facility and equipment expenditures in connection with its domestic industry products, including at Valeo's Troy, Michigan, facility, which approximates [] square feet, as well as the associated maintenance, supplies, contracted services, utilities, taxes, depreciation, and rent. (*See id.* at 120-21 (citing CX-710C, Moreman DWS at Q/As 94-96, 100; CX-714C, Mulhern DWS at Q/As 125-133).) Valeo's expert estimated the facility expenses attributable to the domestic industry products at approximately [] from 2012 through the filing of the complaint. (*See id.* at 121 (citing CX-714C, Mulhern DWS at Q/As 125-133).) Valeo also argues that it made significant investments in equipment used in the design, development, and testing of the domestic industry products, including [] (*See id.* (citing CX-710C, Moreman DWS at Q/As 111-116).) Valeo exemplifies the [] resulting in a [] investment attributable to the domestic industry products based on a project-based allocation factor. (*See id.* at 122 (citing CX-714C, Mulhern DWS at Q/As 137-143).)

b. Trico

Trico argues Valeo does not satisfy the economic prong of the domestic industry requirement because Valeo's analysis improperly includes unpatented parts. (*See* RIB at 74.) Specifically, Trico argues the Asserted Patents do not cover wiper motors and linkages. (*See id.*) Trico further asserts Valeo failed to demonstrate that the unpatented parts are critical to the operation of the patented connector and wiper blade, particularly given that Valeo sells

PUBLIC VERSION

aftermarket blades, such as the Peak Optix (CPX-19), and the Rain-X Expert Fit (CPX-18), that are designed to fit wiper arms made by other wiper suppliers. (*See id.* at 76.)

Trico further argues that the design, development, or testing activities are not attributable to the patented articles. (*See id.* at 77 (citing CX-714C, Mulhern DWS at Q/As 64, 66).) For example, Trico asserts that the design activities do not relate to the patented connector but to “the length of the arm, the length and wipe quality of the blade, and the performance and size of the wiper motor.” (*See id.* at 78.)

Still further, Trico asserts that Valeo’s “domestic activities constitute [] (*See id.* at 80.) Trico reasons that the [] that Valeo relies upon, over two years and nine months from 2012 through the filing date of Valeo’s Complaint, are neither “significant” or “substantial” when viewed in the context of Valeo’s [] in 2014 North America sales.⁵ (*See id.* at 79-80 (citing CX-714C, Mulhern DWS at Q/A 49, 149).)

c. Discussion

Valeo satisfies the economic prong of the domestic industry requirement under Section 337(a)(3)(A) and (B).

(i) The Relevant Domestic Industry Includes the Entire Wiper System.

The central dispute between the parties is whether I should consider in the domestic industry calculus, the entire Valeo wiper system, including unpatented parts such as the wiper motor and linkage, or just the patented component(s), which according to Trico, are limited to

⁵ Trico cites a [] sales figure in its Reply Post-Hearing Brief that is “attributable to just the arm, connector, and blade components of the wiper systems using the Gen IIB connector between 2012 and 2014.” *See* RRB at 93.

PUBLIC VERSION

the wiper blade for the '798 patent and the combination of a wiper blade and wiper arm for the '044 patent.⁶

Under Commission precedent, I find that the relevant domestic industry analysis extends to the entire wiper system, including the wiper motor, linkage, arm, Gen IIB connector, and blade. Specifically, in *Certain Video Game Systems and Wireless Controller and Components Thereof*, the Commission held that:

[I]n certain circumstances, the realities of the marketplace require a modification of the principle that the domestic industry is defined by the patented article. It may happen that the patented article is not itself an actual article of commerce, but is physically incorporated as a component in a downstream article of commerce. In such circumstances, the Commission may, depending on the facts of each particular investigation, extend the relevant “industry” to a downstream article of commerce incorporating the patented component.

Inv. No. 337- TA-770, Comm’n Op. at 66 (U.S.I.T.C. Oct. 28, 2013) (citations omitted). In *Certain Video Game Systems*, the Commission found that even if Complainant “sells [the claimed wands] exactly as they are imported from Hong Kong as a stand-alone item on [its] website and retail outlets,” Complainant could still rely on expenses relating to specialized hardware and software that are necessary to enable Complainant “to exploit the [patented] technology.” *See id.* at 67, 68, 70. Complainant, however, could not rely on expenses relating to components without “any effect on the interactive capabilities of the [claimed] wand.” *See id.*

Here, Valeo has indisputably established that the vast majority of its sales [] are completed through the OEM channel. (*See* CFF376; RFF376; CX-710C, Moreman DWS at

⁶ The '798 patent also includes non-asserted claims directed to “a wiper assembly comprising a wiper arm and a wiper blade assembly.” *See* JX-2, claims 16 and 17 of the '798 patent. Non-asserted claims may also be considered for purposes of domestic industry. *See* 19 U.S.C. § 1337(a)(2) and (3).

PUBLIC VERSION

Q/A 24.) Valeo has also established that the OEMs require “turnkey” solutions, *i.e.*, multi-component (complete) wiper systems. (See CFF377; RFF377; CX-710C, Moreman DWS at Q/A 38.) Valeo also sells aftermarket wiper blades [

] (See CX-710C, Moreman DWS at Q/As 23-24.)

The reality of the OEM marketplace and Valeo’s OEM operations demonstrate that the relevant domestic industry, as far as Valeo is concerned, is the entire wiper system, not just the wiper blade that can be sold after market. The various components of the entire wiper system are essential to Valeo’s ability to exploit the patented technology and have a direct effect on the capabilities of the claimed combination of a wiper arm and a wiper blade. See, *e.g.*, CX-714C, Mulhern DWS at Q/As 67-69 (“[A]ll components of the wiper system function together as an integrated unit.”); CX-710C, Moreman DWS at Q/A 40 (“All the components of a wiper system must work together in order to function as intended.”).

Thus, I find the relevant domestic industry includes the entire wiper system, which includes the wiper motor, linkage, arm, Gen IIB connector, and blade. At a minimum, the relevant domestic industry analysis extends to the combination of a wiper blade and a wiper arm, as the wiper arm is necessary to enable Valeo to exploit the patented invention.⁷ And, even if I were to limit the domestic industry to a wiper arm and wiper blade combination, the combination accounts for more than [] of the wiper systems’ sales revenue (see CX-714C at Q/As 70, 75) (compare Valeo’s [] sales of OEM wiper sales between 2012 and 2014 to [] that are attributable to just the arm and blade components), and therefore, the claimed

⁷ As discussed above, the ’044 patent claims recite a combination of a wiper blade and wiper arm. The ’798 patent also includes non-asserted claims directed to “a wiper assembly comprising a wiper arm and a wiper blade assembly.” See JX-2, claims 16 and 17 of the ’798 patent. This further supports a finding that, at a minimum, the relevant domestic industry analysis extends to the combination of a wiper blade and a wiper arm.

PUBLIC VERSION

combination also supports a finding that the economic prong of the domestic industry requirement is satisfied under Section 337(a)(3)(A) and (B).

(ii) Significance of Valeo's Employment of Labor or Capital Under Subsection (B).

Valeo established quantitatively and qualitatively significant investment in employment of labor or capital, and thus satisfies subsection (B) of Section 337(a)(3).

Design, Development, and Testing ("DD&T"): Valeo's domestic industry expert, Carla S. Mulhern, estimated Valeo's labor investments in the United States, relating to DD&T activities for wiper systems including a Gen IIB connector, are approximately [] per year since 2012. (See CX-714C, Mulhern DWS at Q/A 114; CX-255C; CX-710C, Moreman DWS at Q/As 77-78.) These investments relate to the labor expenses of 21 Valeo employees located at Valeo's facility in Troy, Michigan, and involved in DD&T activities for wiper systems, including system engineers, test technicians, software design engineers, and an R&D contractor. (See CX-714C, Mulhern DWS at Q/As 99-107.) DD&T activities include the [] for use in new vehicles as well as development and testing of [] (See *id.* at Q/A 82, 86-88; CX-710C, Moreman DWS at Q/A 118.) Valeo's expert used a project-based allocation factor to estimate a [] share of labor costs attributable to the domestic industry products. (See CX-714C, Mulhern DWS at Q/As 109-10; CX-257C.)

	2012	2013	Jan. 1 – Oct. 15 2014*	Total
Labor Investment:				
[1] Total Labor Investments	[]
[2] Gen2B Project Allocation Factor	[]
[3] Total Allocated to DI Products	[]

(See CX-255C.)

PUBLIC VERSION

Quality Control: Valeo's expert also quantified approximately [] a year, between 2012 and the filing of the complaint, on quality control labor expenses attributable to the wiper systems including the Gen IIB connector. (See CX-714C, Mulhern DWS at Q/A 124.) That amount was calculated based on the total labor expenses incurred with respect to Valeo's [] quality control employees (including []) and then applying a [] allocation factor to wiper system products and a [] allocation factor based on the Gen IIB share of wiper systems sold to OEMs. (See CX-714C, Mulhern DWS at Q/As 118-24; CX-710C, Moreman DWS at Q/As 89-93; CX-259C.) Valeo's quality control personnel are responsible for the testing and validation of Valeo's systems once in mass production and after delivery to the customer facility. (See CX-714C, Mulhern DWS at Q/A 91; CX-710C, Moreman DWS at Q/A 55.) Some of these employees are located at Valeo's [] (See CX-714C, Mulhern DWS at Q/A 119.)

	2012	2013	Jan. 1 – Oct. 15 2014 ¹	Total
Labor Investments				
[1] Total Labor Investments	[]			[]
[2] Wiper Product Line Allocation	[]		[]	
[3] Total Allocated to Wiper Products	[]			[]
[4] Gen2B Share of U.S. Wiper OEM Sales	[]		[]	
[5] Total Allocated to DI Products	[]			[]

(See CX-259C.)

Trico does not object to the methodology used by Valeo's expert except to argue that it incorporates unpatented parts. As discussed above, however, the domestic industry product includes the entire wiper system and therefore, it properly includes unpatented parts.

PUBLIC VERSION

Thus, I find that Valeo's expenses in employment of labor or capital, in excess of [] per year, establish quantitatively and qualitatively significant investment in employment of labor or capital and thus satisfy subsection (B) of Section 337(a)(3).

SUBSECTION (B) INVESTMENTS		
Type	2012-2014	Yearly Average
DD&T	[]	[]
Quality Control	[]	[]
TOTAL:	[]	[]

(iii) **Significance of Valeo's Investment in Plant and Equipment Under Subsection (A).**

Valeo also established quantitatively and qualitatively significant investment in plant and equipment and thus satisfies subsection (A) of Section 337(a)(3).

Facilities Investment: Valeo operates a facility in Troy, Michigan, which approximates [] square feet. (See CX-710C, Moreman DWS at Q/As 94-96, 100; CX-714C, Mulhern DWS at Q/As 125-133.) The facility houses [] employees and contractors. (See *id.* at 130.) Valeo's expert estimated the facility expenses attributable to the domestic industry products at approximately [] from 2012 through the filing of the complaint based on a full-time equivalent (FTE) allocation methodology. (See CX-714C, Mulhern DWS at Q/As 125-133; CX-263C.)

	2012	2013	Jan 1 – Oct 15 2014 ¹	Total
[1] Troy Facilities Expenses	[]			[]
[2] Troy Facility FTEs Allocated to DI Products	[]			[]
[3] Total Troy Facility FTEs	[]			[]
[4] Share of Troy Facility FTEs Allocated to DI Products	[]			[]
[5] Total Troy Facility Investments Allocated to DI Products	[]			[]

(See CX-263C.)

PUBLIC VERSION

Although she did not quantify investments associated therewith, Valeo's expert noted that Valeo operates other facilities in the United States, including: (1) the Hampton Facility which is about [] square feet, and dedicates about [] of its floor space to wiper systems; (2) the El Paso Facility which is about [] square feet and is dedicated to the distribution of Valeo's wiper products; and (3) the Santa Fe Springs Facility which is about 36,000 square feet, and dedicates about [] of its floor space to wiper systems. (See CX-714C, Mulhern DWS at Q/A 146.)

Equipment Investment: Valeo also made investments in equipment used in the design, development, and testing of the domestic industry products, including [

] (See CX-710C, Moreman DWS at Q/As 111-116.) Valeo does not provide costs for each piece of equipment but exemplifies the [] resulting in a [] investment attributable to the domestic industry products based on a [] project-based allocation factor. (See CX-714C, Mulhern DWS at Q/As 137-143; CX-21C.)

Again, Trico does not object to the methodology used by Valeo's expert except to argue it incorporates unpatented parts. As discussed above, however, the domestic industry product includes the entire wiper system and therefore, it properly includes unpatented parts.

Thus, I find that Valeo's expenses in plant and equipment, of about [] from 2012 through the filing of the complaint, establish quantitatively and qualitatively significant investment in plant and equipment and thus satisfy subsection (B) of Section 337(a)(3).

PUBLIC VERSION

SUBSECTION (A) INVESTMENTS	
Type	2012-2014
Plant	[]
Equipment	[]
TOTAL:	[]

(iv) Conclusion

Valeo's domestic industry expenses, totaling about [] from 2012 through the filing of the complaint (*see* CX-714C, Mulhern DWS at Q/A 149), establish quantitatively and qualitatively significant investments in plant, equipment, and labor, and satisfy the economic prong of the domestic industry requirement under Section 337(a)(3)(A) and (B).

Trico argues that Valeo's total expenses are insignificant when viewed in the context of Valeo's [] However, Trico relied on Valeo's entire yearly revenue of []

[] for multiple product lines, not that part of its business with a relationship to the Asserted Claims. In addition, even if Valeo's domestic industry expenses appear modest in the context of Valeo's total sales revenue, the Commission has emphasized that there is no threshold test for what is considered "significant," as it is not expressly defined in the statute. *See Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm'n Op. at 39 (Aug. 1, 2007). Furthermore, while sales revenue may be indicative of the overall operations of a party in the United States, it is not a required quantitative benchmark. Rather, the test is "whether there is a 'significant' increase or attribution by virtue of the claimant's asserted commercial activity in the United States." *See Lelo*, 786 F.3d at 883. From the perspective of a large business like Valeo, the percentage of labor, capital, and other domestic investments may be relatively small when

PUBLIC VERSION

compared to its total sales or revenue. However, such expenditures may still have a significant effect on commercial activity generally and be a significant and critical contributor to its actual sales. In that context, I find that Valeo's commercial activity in the United States is substantial, and that a significant portion thereof relates to the relevant domestic industry.

B. Technical Prong

1. Legal Standards

The technical prong of the domestic industry requirement is satisfied when the complainant in a patent-based section 337 investigation establishes that it is practicing or exploiting the patents at issue. *See* 19 U.S.C. §1337 (a)(2) and (3); *Certain Microsphere Adhesives, Process for Making Same and Prods. Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 8 (Jan. 16, 1996). "In order to satisfy the technical prong of the domestic industry requirement, it is sufficient to show that the domestic industry practices any claim of that patent, not necessarily an asserted claim of that patent." *Certain Ammonium Octamolybdate Isomers*, Inv. No. 337-TA-477, Comm'n Op. at 55 (August 28, 2003).

The test for claim coverage for the purposes of the technical prong of the domestic industry requirement is the same as that for infringement. *Certain Doxorubicin and Preparations Containing Same*, Inv. No. 337-TA-300, Initial Determination at 109, (May 21, 1990), *aff'd*, Views of the Commission at 22 (October 31, 1990); *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). "First, the claims of the patent are construed. Second, the complainant's article or process is examined to determine whether it falls within the scope of the claims." Inv. No. 337-TA-300, Initial Determination at 109. To prevail, the patentee must establish by a preponderance of the evidence that the domestic product practices one or more claims of the patent. The technical prong of the domestic industry can be satisfied

PUBLIC VERSION

either literally or under the doctrine of equivalents. *Certain Dynamic Sequential Gradient Devices and Component Parts Thereof*, Inv. No. 337-TA-335, Initial Determination at 44, Pub. No. 2575 (May 15, 1992).

2. Parties Arguments

a. Valeo

Valeo argues that the technical prong of the domestic industry requirement is satisfied for both Asserted Patents. Valeo's expert, Dr. Trumper, explained that the domestic industry products (aftermarket wiper blades CPX-17, CPX-18, and CPX-19) practice claims 1, 7, 10, 12, and 15 of the '798 patent and claims 32 and 33 of the '044 patent. (*See* CIB at 47, 105 (citing CX-713C, Trumper DWS at Q/As 371-479).) In addition, with respect to the '044 patent which recites a device (construed as including a wiper arm, *see supra* p. 8), Valeo further argues that the technical prong is satisfied by its aftermarket wiper blades (without wiper arm) because Valeo's "blades are intended to be used by Valeo's customers with compatible OEM Valeo pinch-tab wiper arms." (*See id.* at 106.)

b. Trico

"Trico does not contest that Valeo satisfies the technical prong of the 337 domestic industry requirement" with respect to the '798 patent. (*See* RIB at 67.) However, with respect to the '044 patent, Trico argues that "Valeo's domestic industry products are aftermarket blades that have no wiper arm." (*See id.* at 34.) Trico concludes that Valeo does not satisfy the technical prong of the domestic industry requirement for the '044 patent.

c. Discussion

Valeo presented substantial evidence that its domestic industry products satisfy all elements of the Asserted Patents. (*See* CX-713C, Trumper DWS at Q/As 371-479; CDX-6). This is not disputed by Trico, except that Trico argues that Valeo's domestic industry products

PUBLIC VERSION

do not satisfy the technical prong with respect to the '044 patent, because they do not include a wiper arm.

However, as discussed above in Section III(A)(2)(c)(i), Valeo also sells wiper systems to OEMs (more than [] between 2012 and the filing of the complaint), and those wiper systems include wiper arms that are compatible with Valeo's aftermarket wiper blades. This is also undisputed by Trico. (*See* CFF358-59, RFF358-59.) Since the systems underlying the sales of the OEM systems all contain wiper arms connected to wiper blades covered by the Asserted Claims of the '044 patent, I must find Valeo practices the '044 patent.

In addition, a party is not required to sell all parts of a patented combination but may rely on its customers to satisfy a claimed element. *See Certain Optoelectronic Devices, Components Thereof, and Products Containing the Same*, Inv. No. 337-TA-669, 2010 WL 1249683, *58, Initial Determination (U.S.I.T.C. Mar. 12, 2010) ("Although [Complainant's] products do not directly practice the patents by themselves, the technical prong of the domestic industry requirement may still be satisfied if it can be established that Complainant or its customers configure the allegedly covered products in a manner that practices the claims within the United States."). In this case, there is no dispute that purchasers of Valeo's aftermarket wiper blades are instructed to and do create wiper arm-blade assemblies, as required by the '044 patent claims. (*See* CFF358-59, RFF358-59.)

For the foregoing reasons, I find that Valeo's domestic industry products satisfy the technical prong of the domestic industry requirement.

IV. LEVEL OF ORDINARY SKILL IN THE ART

In Order No. 12, I found that "the person of ordinary skill in the art relevant to the asserted patents would have a bachelor's degree in mechanical engineering, mechanical design, or equivalent experience, and at least two years of experience with the design or manufacture of

PUBLIC VERSION

automobile wiper blades.” *See* Order No. 12, Inv. No. 337-TA-928, at 10 (U.S.I.T.C. Mar. 30, 2015). Neither Valeo nor Trico contest this determination.

V. CLAIM CONSTRUCTION

A. Legal Standards

Claim construction is a “matter of law exclusively for the court.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996).

“Claim construction . . . may have underlying factual determinations.” *Summit 6, LLC v. Samsung Electronics Co., Ltd.*, --- F.3d ---, 2015 WL 5515331, *4 (Fed. Cir. 2015) (citing *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, --- U.S. ---, 135 S. Ct. 831, 837 (2015)).

Claim construction focuses on the intrinsic evidence, which consists of the claims themselves, the specification, and the prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (*en banc*). In construing disputed terms, the Court should first look at the claims themselves, for “[i]t is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips*, 415 F.3d at 1312 (quoting *Inova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)).

The construction of a claim term is generally guided by its ordinary meaning. However, courts may deviate from the ordinary meaning when: (1) “the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention”; or (2) “the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.” *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009). *See also Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“[W]here the patentee has unequivocally

PUBLIC VERSION

disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.”); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 1325 (Fed. Cir.2002) (“The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.”).

Courts are not required to construe every claim limitation of an asserted patent. *See O2 Micro Intern. Ltd. v. Beyond Innovation Technology Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (citations omitted). *See also U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (stating that claim construction “is not an obligatory exercise in redundancy.”). Rather, “claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement.” *O2 Micro*, 521 F.3d at 1362 (quoting *U.S. Surgical*, 103 F.3d at 1568). *See also Embrex, Inc. v. Serv. Eng'g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000) (“The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims.”) (citation omitted).

B. Disputed Terms

As discussed in Section I(C) above, I construed certain terms of the Asserted Patent in Order No. 12. *See* Order No. 12, Inv. No. 337-TA-928, at 10 (U.S.I.T.C. Mar. 30, 2015). The parties also appear to dispute the construction of the following claim terms of the '798 patent: “receiving portion,” “mid-portion,” “first part,” “second part,” and “locking tongue(s).”

Disputed Term	Valeo's Construction	Trico's Construction
“receiving portion” ('798 patent, claim 1)	No construction required. Term should be given its plain and ordinary meaning.	The structure of the connecting element that receives and pivotally bears against the insertion section (<i>i.e.</i> , “seat”).

PUBLIC VERSION

Disputed Term	Valeo's Construction	Trico's Construction
"mid-portion" ('798 patent, claims 7, 10, 12)	No construction required. Term should be given its plain and ordinary meaning.	The portion of the back of the connecting element disposed above and extending over the pivot.
"first part" ('798 patent, claim 1)	No construction required. Term should be given its plain and ordinary meaning.	The insertion section of the coupling section of the wiper arm of the device.
"second part" ('798 patent, claim 1)	No construction required. Term should be given its plain and ordinary meaning.	The part of the coupling section of the wiper arm that defines part of the securing section(s) of the device.
"locking tongue(s)" ('044 patent, claims 11, 12, 14, 32, 33)	Projecting section[s] of a connecting element shaped to interlock and allow a mutually permanent connection to fix the connecting element and the wiper arm in place relative to one another	Plain and ordinary meaning to one of skill in the art viewing the intrinsic evidence: The portions of the connecting element that extend in the longitudinal direction and are elastically flexible in the transverse direction.

C. Discussion

1. "Receiving Portion," "Mid-Portion," "First Part," "Second Part"

Valeo argues that the terms "receiving portion," "mid-portion," "first part," "second part," should be given their plain and ordinary meaning. (See CIB at 21, 24-27.) Although it initially stated that "[a]ll other terms were given their plain and ordinary meaning," Trico offered different claim constructions for these disputed terms in its Reply Post-Hearing Brief. (See RRB at 4-23; compare RIB at 17, 55.) Trico argues that "receiving portion" must have the same meaning as "seat" because the term "receiving portion" is not used anywhere in the specification of the parent '044 patent but the claim language refers to the same structure as "seat" (which is

PUBLIC VERSION

described in the '798 specification).⁸ (See RRB at 8-11.) Similarly, Trico argues that “first part” corresponds to the “insertion section” and “second part” corresponds to the “securing sections” because the claim language refers to the same structure disclosed in the specification. (See *id.* at 11-17.) With respect to “mid-portion,” Trico argues that it “must necessarily include [at] least some *structure directly above and extending over the pivot*” because “nothing in the specification or drawings of the '798 Patent suggest an embodiment of the connecting element *without* structure disposed above and extending over the pivot.” (See *id.* at 21-22 (emphasis in original).)

I disagree that the disputed terms should be given Trico’s proposed constructions. Trico improperly seeks to narrow the scope of the claims and to import limitations from the embodiments disclosed in the specification into the claims. See *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870 (Fed. Cir. 2004) (“Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim, limitations that are not a part of the claim.”).

There is no basis in the claim language or in the intrinsic record for deviating from the plain and ordinary meaning and no clear and unmistakable disclaimer. There is a “heavy presumption that a claim term carries its ordinary and customary meaning.” *CCS Fitness, Inc. v.*

⁸ Trico is right that the specification of the parent '044 patent application does not use the term “receiving portion” but such an argument relates to “new matter” and provides no basis for narrowing the scope of “receiving portion” (disclosed in the '798 patent) to “seat” (disclosed in the '044 patent). The term “receiving portion” was disclosed in the Abstract and in certain claims of the '798 patent as of the May 12, 2010 filing date of the '798 patent. Thus, the term “receiving portion” is entitled to the full scope of its plain and ordinary meaning at least as of that filing date. This certainly raises the issue of whether the '798 patent claims which include the term “receiving portion” are entitled to the priority date of the '044 patent application. However, Trico failed to make such an argument in its post-hearing briefs and thus I find that the argument is waived. See Ground Rule 15.1.1 (“ . . . Any factual or legal issues not addressed in the post-hearing briefs shall be deemed waived. . . .”).

PUBLIC VERSION

Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citations omitted). The standard for deviating from the plain and ordinary meaning is “exacting” and requires “a clear and unmistakable disclaimer.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012). *See also Epistar Corp. v. Int’l Trade Comm’n*, 566 F.3d 1321, 1334 (Fed. Cir. 2009) (requiring “expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope” to deviate from the ordinary meaning) (citation omitted).⁹

Accordingly, I find that the disputed terms shall be construed in accordance with their plain and ordinary meaning. In addition, I find that the disputed terms are readily understood by persons of ordinary skill in the art and require no further construction.

2. “Locking Tongue(s)”

Valeo argues that the term “locking tongue(s)” should be construed as “projecting section[s] of a connecting element shaped to interlock and allow a mutually permanent connection to fix the connecting element and the wiper arm in place relative to one another. (*See* CIB at 77-78.) Valeo reasons that its proposed construction is consistent with the constructions of “locking edges” and “locking sections” in Order No. 12, which are respectively, “edges shaped to interlock and to fix the connecting element and the coupling section in place relative to one another” and “sections shaped to interlock and to fix the connecting element and the coupling section in place relative to one another.” *See* Order No. 12, Inv. No. 337-TA-928, at 32 (U.S.I.T.C. Mar. 30, 2015). Trico did not offer any proposed construction for this term in its Initial or Reply Post-Hearing Briefs.

⁹ As further evidence that the term “receiving portion” may refer to the rear portion of the connector, rather than being limited to the opening or seat on the front portion, claim 10 of the ’798 patent recites a “rear portion having a pair of receiving members, each receiving member being on a respective lateral side of said rear portion.”

PUBLIC VERSION

I agree with Valeo that the term “locking tongue(s)” should be construed consistently with “locking edges” and “locking sections.”¹⁰ *See Omega Engineering*, 334 F.3d at 1334 (“[W]e presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning.”) (citations omitted). In addition, I agree with Valeo that the plain and ordinary meaning of the term “tongue” in the context of the ’044 patent specification is “projecting section.” *See, e.g., JX-1, ’044 patent at Fig. 2 (showing locking tongue 40).*

Accordingly, I find that “locking tongue(s)” shall be construed as “projecting section(s) shaped to interlock and to fix the connecting element and the coupling section in place relative to one another.”

3. “Receiving Members,” “Blade Support Element,” “Intermediate Element,” and “Back”

Valeo’s Initial Post-Hearing Reply Brief also suggests that the terms “receiving members,” “blade support element,” “intermediate element,” and “back” may be in dispute. (*See CIB at 22-24, 79.*) Valeo argues that no construction is necessary for these terms and that they should be given their plain and ordinary meaning. But, neither does Trico offer any specific constructions for those terms in its Initial or Reply Post-Hearing Brief. Based on the claim language and the intrinsic record, I agree with Valeo that those terms shall be construed in accordance with their plain and ordinary meaning. In addition, because the terms are readily understood by persons of ordinary skill in the art, I find that they require no further construction.

¹⁰ Valeo’s proposed construction for “locking tongue(s)” is similar but slightly different from the constructions of “locking edges” and “locking sections.” I do not see any reason to depart from my earlier constructions of “locking edges” and “locking sections,” and therefore, I will construe “locking tongue(s)” fully in accordance with my earlier constructions rather than with Valeo’s proposed construction.

PUBLIC VERSION

4. **“The End Portion of the Wiper Arm and the Connecting Element Can Pivot with respect to Each Other About the First Location *Until* Said Securing Portion Secures the Second Part of the End Portion of the Wiper Arm”**

Trico also devotes nearly four pages of its Reply Post-Hearing Brief to the following language from claim 1 of the '798 patent: “wherein said connecting element defines a receiving portion . . ., wherein the connecting element is configured such that, in a preassembly position . . ., and wherein the connecting element is further configured such that, after the first part of the end portion of the wiper arm is received by the receiving portion, *the end portion of the wiper arm and the connecting element can pivot with respect to each other about the first location **until** said securing portion secures the second part of the end portion of the wiper arm.*” (See RRB at 17-21 (emphasis added).) The parties do not appear to dispute the meaning of these claim phrases as a whole, and do not offer competing constructions for them, but Trico argues that they do not “exclude a compound movement” of pivoting and sliding to achieve a secure connection. (See *id.* at 20.) I agree that a compound pivoting/sliding motion is not excluded. However, when a linear sliding motion (without pivoting) is required at the end to achieve a secure connection, such configuration would be excluded. Indeed, the claim language states that the connecting element must be capable of pivoting **until** a secure connection between the wiper blade and wiper arm is achieved. In other words, until a secure connection is achieved, the connecting element must still be capable of pivoting with respect to the wiper arm. But when a linear sliding motion is required at the end to achieve a secure connection, by itself (*i.e.*, not as part of a compound pivoting/sliding motion), there is a period of time in which a secure connection is not achieved and the connecting element is no longer capable of pivoting. Such configuration is therefore outside the scope of claim 1 of the '798 patent.

PUBLIC VERSION

Trico also argues that the use of the open-ended “comprising” transitional phrase means that the asserted claim includes additional features beyond those claimed. (See RRB at 20.) However, the “comprising” language allows additional unclaimed features, but it does not allow features that are specifically excluded by the claim language (*e.g.*, claim element 1[h] of the ’798 patent).

VI. INFRINGEMENT

A. Legal Standards

“An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing.” *Markman*, 52 F.3d at 976 (citations omitted).

1. Direct Infringement

A complainant must prove either literal infringement or infringement under the doctrine of equivalents. Infringement must be proven by a preponderance of the evidence. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988). A preponderance of the evidence standard “requires proving that infringement was more likely than not to have occurred.” *Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005).

a. Literal Infringement

Literal infringement is a question of fact. *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). Literal infringement requires the patentee to prove that the accused device contains each and every limitation of the asserted claim(s). *Frank’s Casing Crew & Rental Tools, Inc. v. Weatherford Int’l, Inc.*, 389 F.3d 1370, 1378 (Fed. Cir. 2004). If any claim

PUBLIC VERSION

limitation is absent, there is no literal infringement of that claim as a matter of law. *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

b. Doctrine of Equivalents

Where literal infringement is not found, infringement can still be found under the doctrine of equivalents. Determining infringement under the doctrine of equivalents “requires an intensely factual inquiry.” *Vehicular Techs. Corp. v. Titan Wheel Int’l, Inc.*, 212 F.3d 1377, 1381 (Fed. Cir. 2000). According to the Federal Circuit:

Infringement under the doctrine of equivalents may be found when the accused device contains an “insubstantial” change from the claimed invention. Whether equivalency exists may be determined based on the “insubstantial differences” test or based on the “triple identity” test, namely, whether the element of the accused device “performs substantially the same function in substantially the same way to obtain the same result.” The essential inquiry is whether “the accused product or process contain elements identical or equivalent to each claimed element of the patented invention[.]”

TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc., 529 F.3d 1364, 1376-77 (Fed. Cir. 2008)

(citations omitted).

2. Indirect Infringement

a. Induced Infringement

Section 271(b) of the Patent Act prohibits inducement: “[w]hoever actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b). *See DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (*en banc*) (“To establish liability under section 271(b), a patent holder must prove that once the defendants knew of the patent, they actively and knowingly aid[ed] and abett[ed] another’s direct infringement.”).

b. Contributory Infringement

Section 271(c) of the Patent Act prohibits contributory infringement: “Under 35 U.S.C. § 271(c), a party who sells a component with knowledge that the component is especially designed

for use in a patented invention, and is not a staple article of commerce suitable for substantial noninfringing use, is liable as a contributory infringer.” *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1316 (Fed. Cir. 2010).

B. '798 Patent

1. Asserted Claims

Valeo asserts that Trico infringes claims 1, 7, 10, 12, and 15 of the '798 patent.

a. Claim 1

Claim 1 of the '798 patent recites:

- [a] A wiper blade assembly to be connected to an end portion of a wiper arm, said wiper blade assembly comprising:
- [b] a wiper strip intended to wipe a windscreen;
- [c] an elongate support element supporting said wiper strip along said wiper strip;
- [d] a blade support element connected to said elongate support element over only a portion of said elongate support element, wherein said wiper strip is connected to said elongate support element over said portion of said elongate element that is connected to said blade support element;
- [e] a connecting element pivotably mounted on the blade support element;
- [f] wherein said connecting element defines a receiving portion shaped to receive a first part of the end portion of the wiper arm at a first location on the connecting element, and a securing portion shaped to secure a second part of the end portion of the wiper arm to the connecting element at a second location on the connecting element,
- [g] wherein the connecting element is configured such that, in a preassembly position when the receiving portion first receives said first part of the end portion of the wiper arm, the connecting element and the end portion of the wiper arm form an oblique angle at said first location, and

PUBLIC VERSION

[h] wherein the connecting element is further configured such that, after the first part of the end portion of the wiper arm is received by the receiving portion, the end portion of the wiper arm and the connecting element can pivot with respect to each other about the first location until said securing portion secures the second part of the end portion of the wiper arm.

Valeo asserts that claim 1 of the '798 patent is infringed by the following Trico Accused Products: Trico ExactFit Rear Blade 12-I5US (CPX-9), Trico Force Blade 25-180A (CPX-11), Trico Ice Blade 35-180 (CPX-12), Trico Sentry Blade 32-220 (CPX-14), Trico Tech Blade 19-220WD5 (CPX-15), Trico ExactFit Blade EFB4517L (CPX-22), and Trico NeoForm Blade 16-2113USA (CPX-23). (*See* CIB at 32 (citing CX-713C, Trumper DWS at Q/As 192-216; CDX-4).) Valeo's expert, Dr. David L. Trumper, explained in detail how each element of claim 1 of the '798 patent is satisfied. (CX-713C, Trumper DWS at Q/As 197-216.)

Trico responds that its accused wiper blades do not infringe claim 1 of the '798 patent, because: (1) they do not have a coupling section for a pinch tab wiper arm; (2) they cannot be assembled with a simple pivoting motion; and (3) they cannot be assembled in a toe-to-heel sequence. (*See* RIB at 57-61.)

Based on the testimony of Dr. Trumper and my discussion of the record evidence, *infra*, I find Valeo has proven by a preponderance of the evidence that the accused Trico wiper blades infringe claim 1 of the '798 patent.

(i) Coupling Section for Pinch Tab Wiper Arm

Trico argues that claim 1 of the '798 patent requires a coupling section of a pinch tab wiper arm (*i.e.*, the end portion of a wiper arm, *see supra* p. 8). (*See* RIB at 57-58.) However, in Order No. 12 construing the disputed terms of the Asserted Patents, I found that the "wiper blade assembly" recited in claim 1 of the '798 patent did not include a "wiper arm." *See* Order No. 12, Inv. No. 337-TA-928, at 34-39 (U.S.I.T.C. Mar. 30, 2015). Specifically, I found that a term can

PUBLIC VERSION

be recited in a claim to describe the intended environment or cooperative element of a claimed item without requiring the claim to cover the combination of the claimed item and its cooperative element. *See Xerox Corp. v. Media Sciences, Inc.*:

[S]ometimes a claim can be predicated upon how a claimed item mates with another item without claiming the combination of the two items, but not always. Thus in some circumstances, such as that in *Stencel*, a cooperative element can be a necessary and limiting part of the description without requiring a combination claim. In other circumstances, such as that in *Bicon*, the claimed invention is the combination of the item and its cooperative element.

[T]he degree of interrelationship between claimed item and cooperative element could be used to differentiate *Bicon* and *Stencel*. *Stencel* could be understood as dealing with those claims where a description of the intended environment for the operation of an invention is necessary to inform the claim, and *Bicon* with those where the explained relationship is an integral part of the invention or where the elements are ‘inextricably’ intertwined.

694 F. Supp. 2d 304, 312-13 (S.D.N.Y. 2010) (citing *In re Stencel*, 828 F.2d 751 (Fed. Cir. 1987) and *Bicon, Inc. v. The Straumann Company*, 441 F.3d 945 (Fed. Cir. 2006)). *See also In the Matter of Certain Ink Cartridges and Components Thereof*, Inv. No. 337-TA-565, Final Initial and Recommended Determinations, 2007 WL 1646449, *179-80 (March 30, 2007), *aff’d in part, rev’d in part on other grounds*, Commission Opinion, 2010 WL 5642164 (October 19, 2007) (rejecting respondents’ argument that the claims are “directed to a combination of a cartridge with non-cartridge structure, *e.g.* an ink supply needle” and finding that “the terms [relating to non-cartridge structure] describe the environment in which the claimed cartridge is to operate.”) (citing *In re Stencel*, 828 F.2d at 751).

Here, claim 1 of the ’798 patent does not provide a detailed description of the wiper arm or discuss any meaningful limitations applicable to a wiper arm. Rather, the limitations relating to the “wiper arm” describe the intended environment for the “wiper blade assembly” (the

PUBLIC VERSION

connection). *See, e.g.*, claim 1 of the '798 patent (reciting that the wiper blade assembly is “to be connected to an end portion of a *wiper arm*,” the connecting element defines a receiving portion “shaped to receive a first part of the end portion of the *wiper arm*,” the securing portion is “shaped to secure a second part of the end portion of the *wiper arm*”) (emphasis added).

In addition, the intrinsic evidence shows that the claimed “wiper blade assembly” can be understood independently from the wiper arm. *See, e.g.*, independent claim 10 which recites a “wiper blade assembly” but says nothing about a “wiper arm.” *Compare Bicon*, 441 F.3d at 950 (“[B]ecause claim 5 includes a detailed description of the abutment’s physical characteristics and defines the emergence cuff in a way that depends on those physical characteristics, the invention that is recited in claim 5 and described in its supporting specification can only be understood as being limited by the abutment recited in the claim.”).

Furthermore, I found that the language of claims 16 and 17 of the '798 patent further supports my conclusion that the “wiper blade assembly” does not include the “wiper arm.” The preamble of claims 16 and 17 recites a “wiper assembly” (*not* a “wiper blade assembly”) that comprises a “wiper arm” and the “wiper blade assembly” of claims 1 and 10, respectively. The preamble of claims 16 and 17 would not make sense if, as suggested by Trico, the “wiper blade assembly” already includes a “wiper arm.” In addition, Trico would essentially equate the meanings of “wiper assembly” and “wiper blade assembly.” However, there is a presumption that different terms carry different meanings. *See Becton, Dickinson and Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.”) (citations omitted); *CAE Screenplates*, 224 F.3d at 1317 (“In the absence of