

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

NATIONAL STEEL CAR LIMITED,

Plaintiff,

v.

FREIGHTCAR AMERICA, INC.,

Defendant.

No. 15 CV 3418

Judge Manish S. Shah

MEMORANDUM OPINION AND ORDER

Plaintiff National Steel Car Limited, Inc. sued defendant FreightCar America, Inc. for patent infringement. The asserted patents are U.S. Patent No. 7,434,519; U.S. Patent No. 7,461,600; U.S. Patent No. 7,775,611; U.S. Patent No. 7,878,125; and U.S. Patent No. 8,025,014. The asserted claims concern the structure of more efficient, lighter gondola railcars, with certain features. Currently at issue is claim construction: determining the meaning of certain words and phrases in the patents' claims.

I. Legal Standards

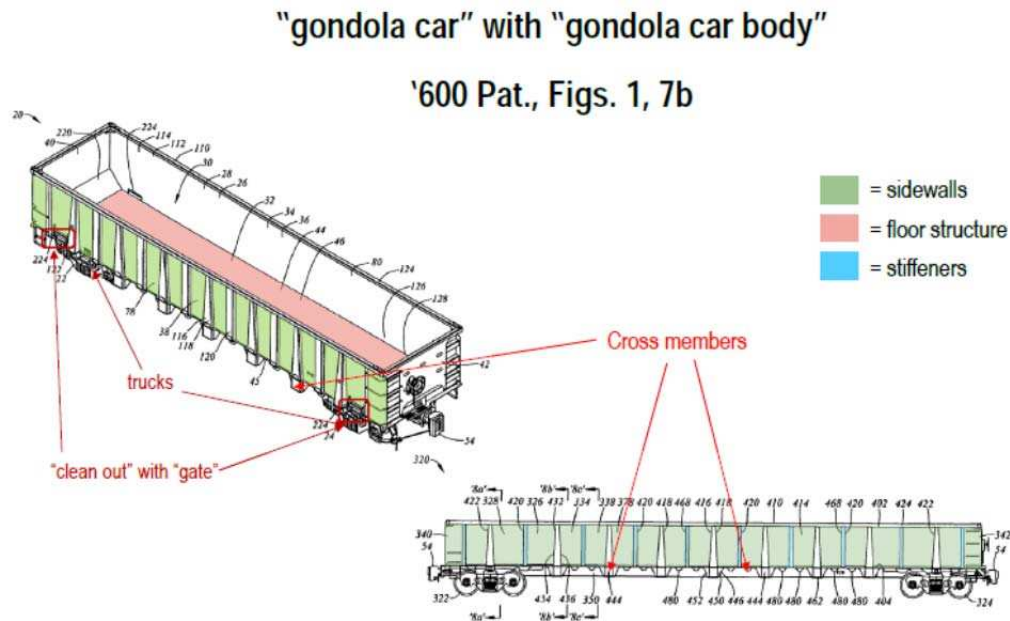
Claim construction is a matter of law. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996); *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1358 (Fed. Cir. 2012). “A basic principle of claim construction is that the words of a claim are generally given their ordinary and customary meaning.” *Source Vagabond Sys. Ltd. v. Hydrapak, Inc.*, 753 F.3d 1291, 1299 (Fed. Cir. 2014) (internal quotation marks omitted) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303,

1312 (Fed. Cir. 2005) (en banc)). The ordinary meaning is the “meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312–13. The person of ordinary skill is assumed to read the claim terms in the context of the entire patent, including the specification and the prosecution history. *Id.*; *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1195 (Fed. Cir. 2013).

A term will not be given its ordinary meaning if the patent applicants intended to give the term a special definition or disclaim its ordinary scope. *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012). There is “a heavy presumption that claim terms carry their full ordinary and customary meaning,” rebutted only if the applicants “unequivocally imparted a novel meaning to those terms or expressly relinquished claim scope during prosecution.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003); *see also Thorner*, 669 F.3d at 1366–67 (a “clear and unmistakable disclaimer” is required to meet this “exacting standard”). The scope of a prosecution disclaimer depends on the nature of the argument made by the applicants to the patent office during prosecution. *Cordis Corp. v. Medtronic AVE, Inc.*, 511 F.3d 1157, 1177 (Fed. Cir. 2008). A disclaimer during prosecution of one patent can affect terms in a related patent if either (1) the disclaimer pertained to a common phrase; or (2) the disclaimer pertained to the common invention as a whole, regardless of the specific words used to claim it. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1346–50 (Fed. Cir. 2004).

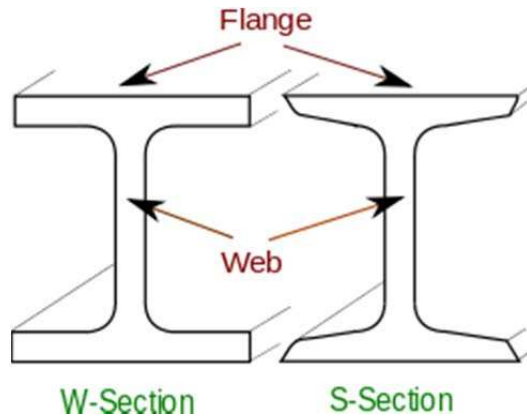
II. Analysis

National Steel Car, a railroad freight car manufacturer, is the owner of the five asserted patents in this case. The patents describe open-topped gondola railcars, generally made of steel, that transport coal and other cargo across the country. A typical gondola car design is reproduced below:



The key features in this type of design include the four sidewalls, stiffeners that help support the sidewall, and the floor structure. The floor rests atop a cross-bearer—a piece of metal stretching across the bottom of the car. In each of the patents, the sidewalls stand directly on the floor, rather than extending past the floor and connecting to an underframe.

In basic engineering terms, a beam, such as an I-beam, provides support for load-bearing structures. The two components of a beam are referred to as the web and the flange, and in a generic I-beam, those components are identified in the following cross-section diagram:



In this diagram, the flanges are the horizontal pieces of the beam, connected by a vertical web.¹ The parties dispute the meaning of “web” and “flange” in the patents at issue. For background purposes, it suffices to say that in the patented railroad car, the floor serves as the top flange of the cross-bearer as well as the bottom flange of the sidewalls, enabling the construction of lighter and stronger railcars.

The cars also have gates, known as “cleanout gates” or “cleanout ports,” which latch in place and can be easily opened and closed to facilitate the moving of material in and out of the car.

A. “Defining,” “defined”

The patents use the words “defining” and “defined” in recurring phrases like the following: “said floor and said wall structure defining a lading receptacle.” [79] at 66–7 and 329–30.² Elsewhere, the ’519 patent mentions “said side beams defining portions of said wall structure.” *Id.* at 65. Terms with the root “define” are generally used in the patents in reference to the shape of the lading receptacle.

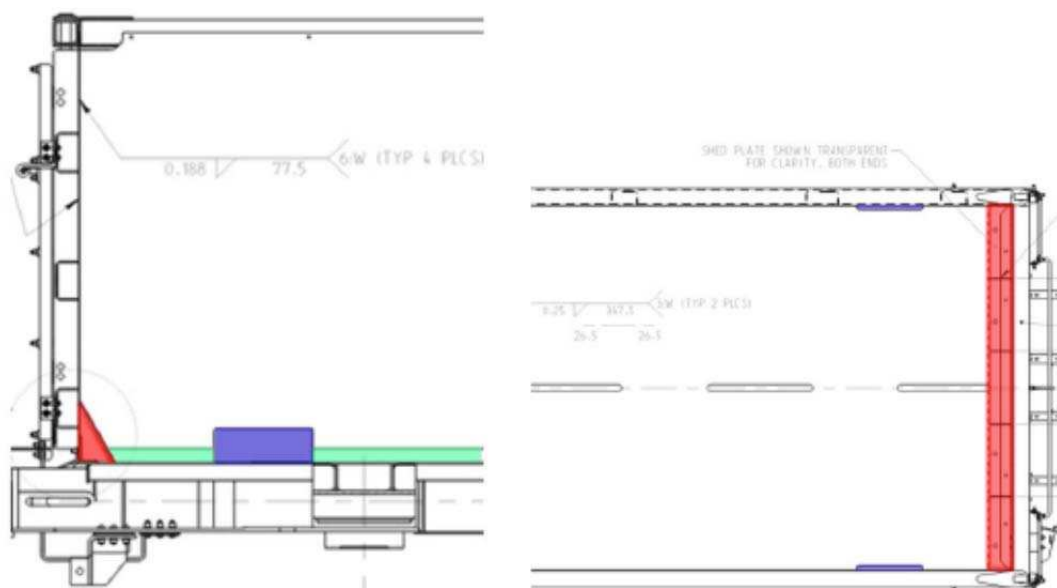
¹ This image of a cross-section of an I-beam was taken from <https://en.wikipedia.org/wiki/I-beam> (last visited June 7, 2017).

² Bracketed numbers refer to entries on the district court docket. Cited page numbers are the page numbers found in the header of the ECF document.

NSC proposes that the terms “defining” and “define[d]” be construed to mean “delineating/delineate[d] the outline or form of.” This is the term’s meaning according to Webster’s dictionary. FCA proposes the construction “delineating/delineate[d] the boundaries of,” which it intends to mean something like “entirely delineating the exclusive boundaries of” rather than “generally delineating the boundaries of.” The distinction between generally delineating the boundaries and exclusively or entirely delineating the boundaries is the main point of contention between the parties. In support of its construction, FCA cites the *New Oxford American Dictionary* definition of “define” as “to state or describe *exactly* the nature, scope, or meaning of” something. [83-3] at 4 (emphasis added).

As a preliminary matter, there is no need to resort to the case law cited by FCA in which other courts have used a similar construction, because the ambiguity in this case can be, and therefore must be, resolved intrinsically. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (stating that “it is improper to rely on extrinsic evidence” when intrinsic evidence alone will resolve the ambiguity).

Using FCA’s construction, the space defined as a lading receptacle in a gondola rail car changes shape when accounting for features like skid plates (red in the image below), clean out doors (blue), and side sills (green), which are attached to the sidewalls and floor that form the fundamental structure of the car.



Left: side view; right: top view
[140-1] at 4.

Thus, according to FCA, the lading receptacle above cannot be defined simply by the floor and wall structures, as this definition does not accurately describe the space available to hold lading. Conversely, using NSC's construction a lading receptacle defined by a floor and walls no more changes shape when doors and side sills are included than a room defined by a floor and walls changes shape because of the inclusion of doors, windows, and carpeting.

The crux of NSC's argument is that while their own construction conforms to both the plain language interpretation and the words as used in the context of the patents, FCA's construction contradicts the way the claims and the specification³

³ A core tension in claim construction is whether or not to construe claims "in view of the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). Although "the claims made in the patent are the sole measure of the grant," *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 (1961), courts must also define claim terms to "comport[] with the instrument as a whole." *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389 (1996). The prevailing standard is to consider the specification as relevant context for construing a claim but to refrain from "importing limitations from the

use the terms “defined/defining.” In the ’519 patent, for instance, claim 27 describes a certain floor and wall structure as “defining a lading receptacle” while also providing for “at least one clean out port mounted in one of said beams.” [79] at 67 (’519 patent, col. 43, II. 25–7 and 37–9); *see also* [79] at 329–30 (’014 patent, col. 40, II. 65 to col. 41, II. 8) (describing a lading receptacle defined by a certain floor and wall structure and including “at least one clean out port mounted in said wall structure to permit material to be flushed out of said lading receptacle.”). In each of these examples, the outline of the lading receptacle is demarcated by the floor and sidewalls, regardless of whether or not the design also included functional features like a clean out port. Likewise, the specification states in multiple places that a lading receptacle is “defined by” the walls and floor of a railcar, even when there are clearly other structures attached to the car that alter the space available for lading. For instance, the first embodiment describes a railcar that “may include a wall structure . . . defining a lading containment receptacle,” even though that same railcar has a cleanout port and inclined lower end sheet that technically impede upon the space inside the receptacle. [79] at 49–50, 56. Although the specification cannot be used to import limitations into the claims, here it serves as useful context to support a reading that is consistent with the claim language.

specification into the claim.” *Phillips*, 415 F.3d at 1323 (“the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice”); *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1373 (Fed. Cir. 2007) (recognizing “the difficulty faced by district courts in trying to walk that tightrope.”).

FCA points out that the specification in the '519 patent actually provided that the lading receptacles in question “may include” these additional features. But whether the use of a clean out port is optional or required, the language of the claims still describes the lading receptacle as defined by the floor and sidewalls without changing the definition in the presence or absence of a clean out port.

The patentees used “defining/defined” in a way that directly contradicts FCA’s construction. For instance, in Claim 22 of the '519 patent, they refer to “said at least one floor panel [that] defines an upper flange of said centersill and said at least one cross-bearer.” [79] at 67 ('519 patent, col. 43, II. 12-14). Dependent Claim 23 goes on to say: “The rail road gondola car of claim 22 wherein said rail road gondola car is free of any other member defining a center sill top flange.” *Id.* ('519 patent, col. 43, II. 16-18). By FCA’s logic, the information that “said rail road gondola car is free of any other member defining a center sill top flange” would be redundant, since the “floor panel [that] defines an upper flange of said centersill” in claim 22 would be the exclusive defining member. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (“[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.”). The word “define” was not used in its exclusive sense.

FCA argues that the language of the claims supports their construction because when plaintiff intended to define only a portion of a structure, they said so explicitly. For example, Claim 1 of the '519 patent discusses “said side beams

defining portions of said wall structure . . . ” [79] at 65. It is well settled that in interpreting patents, courts must give all words their effect. *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006). Therefore, FCA argues, the presence of the modifier “portions of” tells us that when NSC wanted to indicate that an area was *not* exclusively defined by side beams and wall structures, they did so. Yet adopting NSC’s construction does not read out phrases like “portions of.” In Claim of 1 of ’519 for instance, it is perfectly consistent to read the claim as describing side beams that delineate the outline of certain portions of the wall structure. The phrase “portions of” limits the scope of what is being defined here, but it does not alter the meaning of “defining” in that sentence or as used throughout the claims.

Finally, FCA asserts that the prosecution history of the ’600 patent supports their construction. “[A] patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution.” *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008) (quoting *Purdue Pharma L.P. v. Endo Pharms. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006)). The Examiner originally rejected Claim 1 of the ’600 patent because another patent (the “Yost” patent) disclosed the same claimed gondola. In amending claim 1 to distinguish the patent from Yost, plaintiff added the following bolded words to the rejected claim: “A railroad gondola car comprising a gondola car body . . . including flooring . . . and a peripheral sidewall standing upwardly of said flooring, said sidewall having at least one opening defined therein **defining a sidewall**

cleanout by which materials be flushed from said gondola car body, said floor panel extending to said sidewall at said opening . . .” [79] at 681 (emphasis added).

FCA believes the word “defining” was used to denote that the opening in the sidewall is completely delineated by the sidewall structure, not by portions of the floor like the Yost design. NSC denies that either they or the Examiner understood the word this way. Indeed, NSC points out that if they intended to disclaim an opening defined by the sidewall and the floor, they would have done so, instead of amending the phrase to differentiate their clean out port from Yost’s unloading door. FCA has not demonstrated a “clear and unmistakable disavowal of scope” during the prosecution of this patent, and nothing in the above bolded phrase sheds light on the way the word “defining” was used in the claims.

NSC’s proposed construction is consistent with the plain language of the term “defined/defining” and its use in the context of the patents. I agree with NSC’s construction.

B. “Mating, mated”

The parties dispute whether the term “mating” or “mated” requires the union of two physically separate and distinct pieces or whether the terms can also apply to the union of two surfaces (like a web and a flange). NSC proposes the construction “describing two interlocked surfaces or pieces”/“two interlocked surfaces or pieces,” which is the definition used in the Dictionary of Mechanical Engineering and very similar to the definition used in the Chambers Dictionary of Science & Technology.

[139-1] at 8 and 11. FCA proposes the construction “joined or fitted together,” and notes that “the word ‘interlocked’ necessarily requires two separate pieces,” which is similar to the *New Oxford American Dictionary* and *Merriam-Webster’s Collegiate Dictionary* definitions. [83-3] at 5 and [83-5] at 3. NSC argues that its construction encompasses two integrally-formed surfaces of the same piece coming together, as in a bent piece of metal.

FCA points out that all of the uses of “mating”/“mated” in the asserted patents unambiguously require the joining of two separate pieces. The relevant phrases are below, with each separate piece in bold for emphasis:

- ’519 Patent, Claim 1, [79] at 65: “said **at least one floor panel** and said **lower margin of said shear web member** being directly mated together”
- ’519 Patent, Claim 3, [79] at 66: “said **lower portion [of said shear web member]** being mated directly to said **at least one floor panel**”
- ’519 Patent, Claims 15, 21 and 27, [79] at 66–67: “said **at least one floor panel** and said **shear web member** being directly mated together”
- ’519 Patent, Claims 14 and 19, [79] at 66: “said **webs [of said cross-bearers]** having upper margins mated directly to said **at least one floor panel**”
- ’611 Patent, Claim 15, [79] at 199: “**said portions of said legs of said first sidewall reinforcement** extending below said floor mating with **said flange of said cross-bearer**”

All of the above terms use “mating” or “mated” in the context of two or more separate pieces joining together.

NSC points to instances in the specification where other methods of forming structures, such as “pressing, “forging,” or “roll forming,” are used to describe structures that don’t require the welding of two separate pieces of metal. [79] at 52-53 (’519 patent, col. 14, II. 4-10 and col. 15, II. 53-61). But this is irrelevant to the construction of “mating”/“mated” since those examples never use the words

“mating” or “mated.” Moreover, it is improper to use the specification to put a limiting construction on terms that are more broadly defined in the claims. *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

FCA’s construction of “mating”/“mated” is correct.

C. “Flange” and “web”

NSC proposes the following constructions: a “flange” is a “member that carries bending moment” and a “web” is a “member that carries shear force.” FCA proposes that a flange is “a projecting flat rim, collar, or rib on an object serving to strengthen or attach and that predominantly resists bending forces,” while a “web” is “a sheet that predominantly resists shear forces.”⁴ FCA believes that, because a single structure can act as both a web and a flange depending on the forces exerted on it at the time, limiting language like “predominantly” is critical to provide the jury with objective criteria to distinguish between a web and a flange. The parties’ disputes fall into three categories: whether to include a description of the shape of a flange, whether to include the word “predominantly,” and how to weigh the testimony of FCA expert and professional engineer Keith Miller.

1. Shape of a flange

FCA asserts that every description of a flange in the claims depicts a “flat rim, collar, or rib,” a point that NSC does not dispute but finds misleading. At the *Markman* hearing, NSC admitted that if a “flat rim, collar, or rib” could describe a

⁴ FCA’s original proposal also described a web as “substantially flat in at least one direction” but they withdrew that aspect of their proposal in the *Markman* hearing held on January 31, 2017.

flat floor or plate, there is no material dispute between the parties. Its concern is whether FCA's description would be confusing to a jury looking at, in many instances, the deck or floor of a railcar. Moreover, FCA's own expert admitted that some flanges in the specification did not match the description "rim, collar, or rib" and agreed that a Student Engineer's Companion definition that did not mention shape was an acceptable definition. [139-1] at 216-17, 296. In light of this, I agree with NSC that the language proposed by FCA is needlessly limiting.

2. *Use of "predominantly"*

The parties agree that a web can sometimes act as a flange and a flange can sometimes act as a web, depending on the force applied at a given moment. This is why FCA believes the word "predominantly" is helpful to give the fact-finders a metric for identifying when a piece is acting as a web or as a flange. FCA notes that "predominantly" is a term that people skilled in the art are comfortable with and a word that is used throughout the patents. NSC objects to the use of "predominantly," in part because they believe it is unnecessarily limiting and complicating, and in part because it is an imprecise term. Indeed, FCA's expert would not quantify "predominantly" because in various circumstances it could mean "more than 50%" or "a plurality of the force."

There may be some practical value in distinguishing webs and flanges by reference to the kind of force the structure typically or largely resists in a railroad car. But the ordinary meaning of these components of a beam does not contain a quantitative limitation on the type of force they resist. Adding the word

“predominantly” unnecessarily limits the claim terms beyond their ordinary meaning.

3. *Miller’s expert declaration*

NSC asks that I give Miller’s expert declaration no weight because, although he is a professional in the field, he did not consider the patents in full or review all the language in the patents. But Miller’s declaration is limited to his definition of the words “web” and “flange,” and his input is useful as the perspective of a person of ordinary skill in the art. I will not disregard Miller’s declaration.

NSC opposes Miller’s definition because the forces he considered were in the context of simple bending—a set of circumstances with certain fixed conditions—whereas the forces upon a railcar are more complex. For instance, Miller and FCA’s definition does not tell a person skilled in the art where to look along the wall to determine if the force applied is predominantly bending or shear. NSC contends that because the type and amount of force can change depending on where along the wall someone is looking, how the car is loaded, and other factors, Miller and FCA’s definition does not provide a consistent way to identify webs and flanges. Furthermore, NSC argues that it’s difficult to even compare bending force (measured in pounds per force) to shear force (measured in pounds per square inch). These arguments, while they may be reasons to drop the word “predominantly” from Miller and FCA’s definition, do not tell me anything in particular about NSC’s proposed construction.

NSC proposed a new construction at the *Markman* hearing, defining a web as “the vertical part of a beam” and a flange as “the horizontal part of a beam.” However, NSC admits that this definition would not necessarily apply throughout the patents in question or in the unasserted patents. Because this definition fails to provide a consistent reading throughout the patents, I reject this suggestion.

Nevertheless, I agree with NSC that it is helpful to include the fact that a web and flange function together as part of a beam. The Student Engineer’s Companion does so, providing several definitions of “flange” including “the top and bottom parts of an I-section beam or channel section.” [139-1] at 296. At his deposition, Miller reviewed this definition and agreed that it was fair.

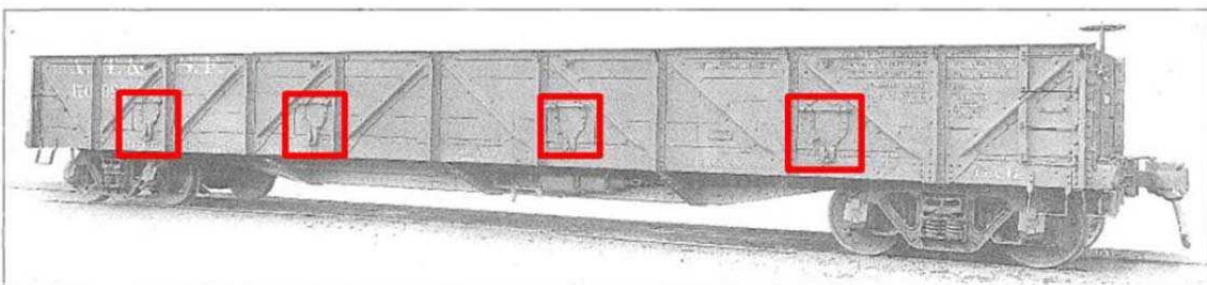
Thus, “web” will be construed as “the part of a beam that carries shear force,” and “flange” will be construed as “the part of a beam that carries bending moment.”

D. “Clean out port,” “cleanout opening,” “sidewall cleanout”

The parties propose the following constructions for “clean out port,” “clean out opening,” and “sidewall cleanout.”

Term	NSC’s Proposal	FCA’s Proposal
“clean out port”	port for flushing/washing out residual material	port for cleaning out material
“clean out opening”	opening for flushing/washing out residual material	opening for cleaning out material
“sidewall cleanout”	opening in the sidewall for flushing/washing out residual material	opening in the sidewall for cleaning out material

The heart of the dispute is whether NSC has artificially narrowed the definition of “clean out” by limiting it to specific actions such as flushing, washing out, or sweeping.⁵ NSC objects to FCA’s definition because it would include any type of unloading door, even those that are not suitable for cleaning out a railcar. For instance, FCA cited prior art references (referred to as the GA-6/GA-8 railcars) that also claim “clean out ports.” [139-1] at 64. But those features are meant for “discharging small amounts of coal,” which is not the same function as the clean out ports disclosed and claimed in NSC’s asserted patents. Indeed, because of the GA-6/GA-8 railcars’ higher placement of their so-called clean out ports, NSC argues that they are unsuitable for use as a port to clean out the railcar even if one wanted to use them that way. An image of the higher placement of the doors on the GA-6/GA-8 sidecars is below:



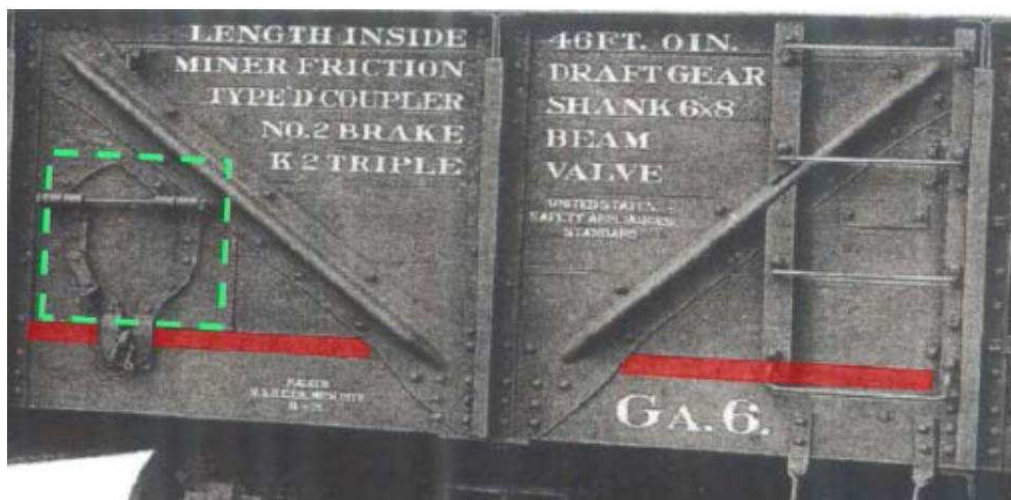
This Haskell & Barker builder's photo shows GA-6 ATSF 170090 as it appeared when brand new. Fishbelly center sills, KC air brake equipment, vertical staff hand brake, and L-section Andrews trucks with Barber lateral motion devices are clearly shown. The four small doors in the wood side sheathing were provided for discharging small amounts of coal, though hauling coal was not the primary purpose for which the cars were built. -Santa Fe photo, Temple Railroad and Heritage Museum collection

[139-1] at 64 (annotations added by FCA).

⁵ FCA argued in its briefs that “clean out” could refer to many other types of cleaning, such as sweeping. At the *Markman* hearing, NSC conceded that it would also accept “sweeping” as part of its definition, but continued to oppose the catch-all term “cleaning.”

While it is technically possible to use the unloading doors to shovel out lading, NSC argues that it would be inconvenient and ineffective, which is precisely where NSC claims to have innovated and improved on existing designs.

However, NSC has not made clear how “discharging” lading is a fundamentally different function from “cleaning out” the railcar. Moreover FCA points out that the GA-6/GA-8 railcars do have clean out ports that are flush with the floor, in addition to the higher-placed doors that NSC considers unsuitable to serve a clean out function. An example of the flush doors is below.



[139-1] at 103 (floor panel (red) is flush with the clean out port (green)).

FCA also rightly notes that NCA’s proposed definition improperly imports limitations into the claims. *See SuperGuide Corp.*, 358 F.3d at 875 (“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. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.”); *see also Tex. Digital Sys., Inc. v. Telegenix, Inc.*,

308 F.3d 1193, 1202 (Fed. Cir. 2002) (there is a “heavy presumption” that the terms used in claims “mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.”). For instance, neither the specification nor the asserted patents refer to “residual materials,” so NSC’s addition of that term artificially narrows the actual claims.

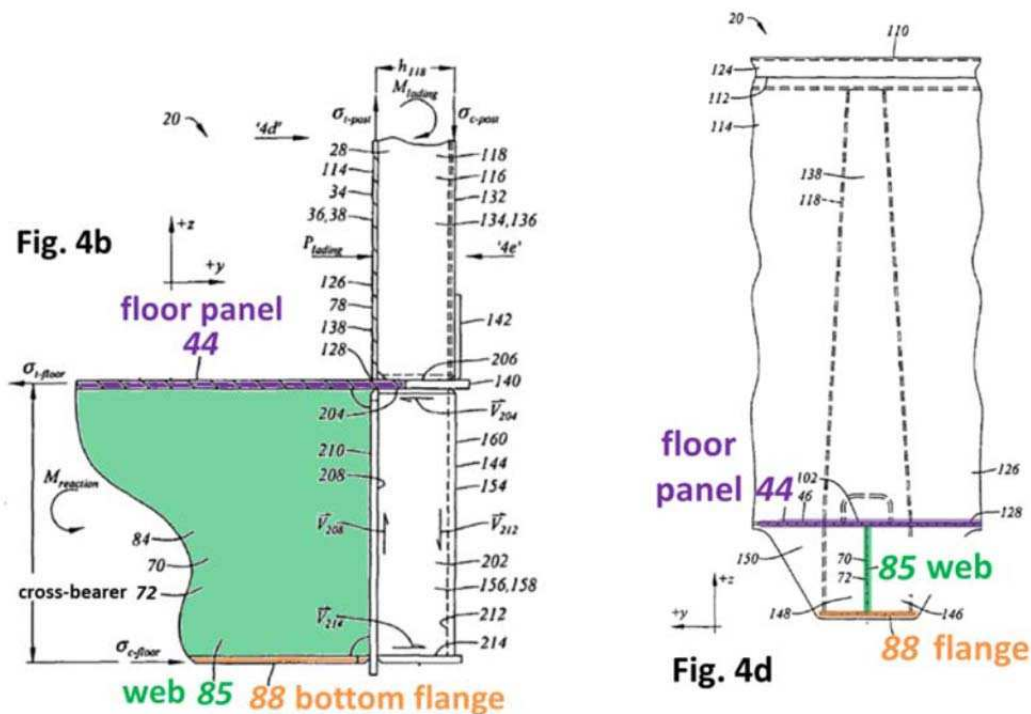
Additionally, five claims from the asserted patent specify that a particular clean out port is meant to permit material to be flushed from the car, while the remaining mentions of a clean out port do not limit the cleaning activities to flushing. *See* [79] at 329–330 (referencing a “clean out port . . . to permit material to be flushed out of [the] lading receptacle”); *id.* at 131 (“a sidewall cleanout by which materials may be flushed from said gondola car body”). Because courts must give effect to all terms in the claim, *Bicon*, 441 F.3d at 950, “clean out” used in conjunction with “flushing” must have a different meaning than “clean out” used on its own. NSC’s proposed construction therefore renders the use of “flushing” redundant by suggesting that “clean out” denotes “flushing.”

Given the strong presumption that claim terms “carry their full ordinary and customary meaning,” *Omega Eng’g*, 334 F.3d at 1323, I agree with FCA that the simplest interpretation of the language in the claims is the most accurate.

E. “Mounted under said floor”

The term “mounted under said floor” appears in claim 15 of the ’611 patent, which describes a cross-bearer comprised of a flange and a web with one of the

web's margins “mounted under said floor” and the second margin located below the floor and “distant from[] said floor.” An illustration is below:



[79] at 142–143.

NSC proposes that “mounted under said floor” should be construed as “mounted to the underside of the floor.” FCA proposes the plain and ordinary meaning of the term: “mounted under the floor.”

NSC argues that the use of the phrase “distant from said floor” in relation to the second margin demonstrates that the patentees could and did indicate that a margin was not attached to the floor when they intended to do so. But the use of the phrase “distant from said floor” does not preclude the possibility that the first margin, the one “mounted under said floor,” was located near but unattached to the underside of the floor.

It is true that the specification repeatedly refers to the web of the cross-bearer being directly connected to the floor, suggesting that this is what the patentees had in mind when describing this feature. But “[t]he plain meaning of claim language ordinarily controls unless the patentee acts as his own lexicographer and provides a special definition for a particular claim term or the patentee disavows the ordinary scope of a claim term either in the specification or during prosecution,” *InterDigital Commc’ns, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1324 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1312–13), and the plain and ordinary meaning of “under” is “under.” The word does not inherently speak to whether the object is attached or detached—it must simply be “below.” Since NSC has not provided a special definition for this term, nor did they disavow the ordinary scope of the term in the specification or during the prosecution, I interpret the term according to its plain and ordinary meaning.

This reading is supported by placing the phrase in the context of the asserted claims. The doctrine of claim differentiation “is based on ‘the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope.’” *Andersen Corp.*, 474 F.3d at 1369 (quoting *Karlin Tech. Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971-72 (Fed. Cir. 1999)). “To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between the claims is significant.” *Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987). In this case,

NSC elsewhere used the word “underside” to clearly and explicitly indicate a physical attachment between a floor and cross members, which would indeed be superfluous if they intended to describe the same structure as in claim 15 of the ’611 patent. *See* [79] at 132 (referencing the “substantially flat floor structure having cross members affixed to the underside thereof.”).

Because the important feature in this phrase is that the object is directionally located below the floor, I construe the phrase “mounted under said floor” to mean “mounted under the floor,” which is synonymous with mounted below the floor and does not require the object to be mounted to the underside of the floor.

F. “Margins”

NSC proposes to give “margins” its plain and ordinary meaning: “the edge and/or the border,” and adds the example “in a three-dimensional object, such as a sheet, the margin can refer to the outer edge, but it can also refer to the outer portion of a surface along that edge, as in the margin of a sheet of paper.” FCA argues that the term as used in the patents is indefinite, or, in the alternative, should be defined as “the edge or border.”

“Because a claim’s definiteness affects a court’s ability to construe a claim, it sometimes makes sense to address an indefiniteness challenge, which is a legal question, during claim construction.” *Kolcraft Enterprises, Inc. v. Chicco USA, Inc.*, 2016 WL 4593814, at *5 (N.D. Ill. Sept. 2, 2016) (citations omitted). “Consistent with the statutory presumption of patent validity, the patent’s challenger must show indefiniteness by clear and convincing evidence.” *Id.* The claim in question is

indefinite if, when “viewed in light of the specification and prosecution history, [it fails to] inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S.Ct. 2120, 2129 (2014).

FCA argues that the term “margins” is indefinite because NSC does not provide sufficiently clear guidance on the size of the margins. In particular, FCA notes that NSC had to resort to an example to clarify their own construction and that in the patents, they provide a minimum width for the margin but no upper bound. Because “purely subjective” claim phrases require written guidance in the asserted patents, *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371-72 (Fed. Cir. 2014), FCA argues that the fact that the patentees have not provided a maximum width for “margins” renders the term indefinite in this context. According to FCA, allowing the patentees to use “margins” without quantifying the measurement would deprive FCA and other would-be inventors of their right to public notice via the patent claims.

But the term “margins” is not “purely subjective” like the phrase “unobtrusive manner” in *Interval Licensing*. “Margins” is not even a term of degree. “A term of degree fails to provide sufficient notice of its scope if it depends ‘on the unpredictable vagaries of any one person’s opinion.’” *Interval Licensing*, 766 F.3d at 1371. Utilizing the patent may require more information than just the term “margins,” but “margins” can be construed as an idea on its own, regardless of the qualifiers it may need to ensure the patent’s overall validity. *See Nautilus*, 134 S.Ct.

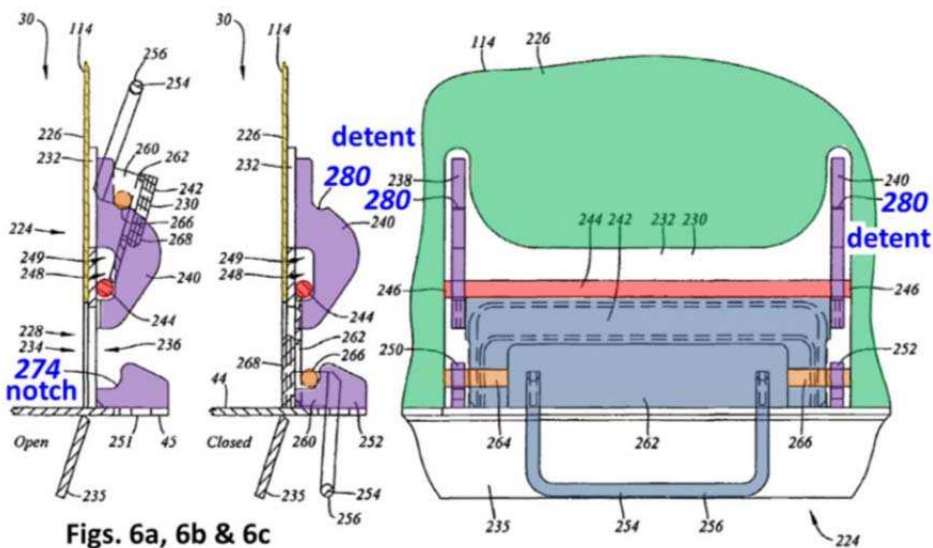
at 2129 (“The definiteness requirement . . . mandates clarity, while recognizing that absolute precision is unattainable.”).

Moreover, NSC points to column 12 of the ’519 patent where various maximum widths are in fact provided. [1-1] at 50. Whether these guidelines are sufficient to defend the patent’s validity is a question for another day.

Having ruled out indefiniteness at the claim-construction stage, I adopt the construction of “margins” as “the edge and/or the border.”

G. “Detent”

The term “detent” appears in asserted claims 10, 14, 16, 17, and 24 of the ’014 patent in reference to a structure that holds a moveable access member, such as a cleanout door or gate, in the open and/or closed position. For instance, the below diagrams show a pair of upper detents (280) and a pair of lower detents (274) depicted as notches or grooves holding the gate in an open or closed position. Figures 6a and 6b depict the closed position and Figure 6c depicts the open position.



[79] at 21.

The specification also describes how the above diagrams function to latch the cleanout gate open or closed. [79] at 57 ('519 patent, col. 23, II. 16–30).

NSC proposes that “detent” be construed to mean “a groove or notch to hold a sliding object in position.” FCA argued in its briefs that “detent” was indefinite, but dropped this argument at the *Markman* hearing in favor of the construction “a groove or notch to hold an object in position.” FCA notes that nowhere in the specification or the claims does the word “sliding” appear and that it needlessly and improperly limits the term. NSC responds that the specification does describe a sliding motion (“by lifting handle more or less straight upward, and forcing the hinge rod ends linearly upward in slots”) although it does not use the word “sliding.” [79] at 321 ('014 patent, col. 23, II. 31–42). A phrase from the specification of the '014 patent also describes “sliding.” *Id.* ('014 patent, col. 23, II. 17–22) (describing a structure that “ride[s] up the ascending profile of the ramps”).

Nevertheless, neither the specification nor the claims place explicit limitations on the way in which the object being held in place must move to get into the detent. As FCA points out, the description simply portrays a moveable object, whether by sliding, rotating, swinging, or any other motion. And with regard to the specification, any suggested limitation on the claim terms that is not inherent to the claims themselves cannot be imported to construe the claims. *SuperGuide Corp.*, 358 F.3d at 875.

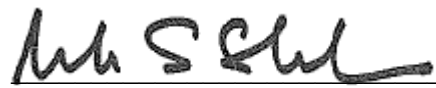
For these reasons, I adopt FCA’s construction of the term “detent” to mean “a groove or notch to hold an object in position.”

III. Conclusion

For the reasons set forth above, I resolve the present claim construction disputes as follows:

1. “Defining”/“defined” means “delineating/delineate[d] the outline or form of.”
2. “Mating”/“mated” means “joined or fitted together.”
3. “Flange” means “the part of a beam that carries bending moment.” “Web” means “the part of a beam that carries shear force.”
4. “Clean out port” means “port for cleaning out material.” “Clean out opening” means “opening for cleaning out material.” “Sidewall cleanout” means “opening in the sidewall for cleaning out material.”
5. “Mounted under said floor” means “mounted under the floor,” and does not require the object to be mounted to the underside of the floor.
6. “Margins” means “the edge and/or the border.”
7. “Detent” means “a groove or notch to hold an object in position.”

ENTER:

A handwritten signature in black ink, appearing to read 'Manish S. Shah', written over a horizontal line.

Manish S. Shah
United States District Judge

Date: June 8, 2017