

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION**

ADAMS ARMS, INC.,

Plaintiff,

vs.

Case No. 8:10-CV-146-T-27TGW

SIG SAUER, INC.,

Defendant.

ORDER

BEFORE THE COURT are (1) Plaintiff's Motion for a Preliminary Injunction (Dkt. 5), Defendant's response (Dkt. 20), the parties' supplemental submissions (Dkts. 47, 48), and (2) Plaintiff's Unopposed Motion for Leave to File Under Seal Sig Sauer's Response to U.S. Army Market Survey Request (Dkt. 32). After considering the parties' submissions and arguments of counsel at the March 10, 2010, hearing, the Court finds that Plaintiff has not demonstrated a reasonable likelihood of success on its patent infringement claim or a substantial likelihood of irreparable harm if injunctive relief is denied. Accordingly, Plaintiff's Motion for Preliminary Injunction is DENIED.

Background

Plaintiff Adams Arms, Inc. owns U.S. Patent No. 7,469,624 (the "'624" Patent), entitled "Direct Drive Retrofit for Rifles." Plaintiff sued Defendant Sig Sauer, Inc., a manufacturer of firearms and related parts and accessories, alleging that, without authorization, Defendant is making, using, offering to sell, or selling products embodying the invention claimed in the '624 Patent in violation of 35 U.S.C. § 271. Compl., Dkt. 1, ¶¶ 10-11. The accused product is Defendant's SIG516

rifle. Defendant counterclaimed (Dkt. 15) for a declaratory judgment of non-infringement (Count I) and invalidity of the '624 Patent (Count II). Plaintiff's Motion for Preliminary Injunction contends that the SIG516 infringes claims 1, 2, 6, and 7 of the '624 Patent¹ and requests an order enjoining Defendant from manufacturing or selling the SIG516 and from submitting in response to a U.S. Army market survey announcement materials that Plaintiff characterizes as an offer to provide the government with weapons that incorporate the invention claimed in the '624 Patent.

The M-16 Gas Impingement System

The '624 Patent relates generally to “an improvement to the impingement system of the M-16 and AR-15 rifle platforms, and more particularly to the replacement of the impingement system with a direct drive system.” '624 Patent (Dkt. 1 at 6-15), col. 1, ll. 6-9.

The AR-15 is an assault rifle design that was developed by Armalite, the Armalite Model 15.² The M-16 is the U.S. military designation for the AR-15. Hirt Decl. ¶ 4. For brevity, this order refers to both rifles as the M-16. The core components of the M-16 (including the bolt carrier and the upper and lower receivers) are built to military specifications. *Id.* As a result, “an AR-15-/M-16 rifle may be built from the ground up using components from any of a number of manufacturers.” *Id.* AR-15-/M-16 rifles are also highly customizable. *Id.* For many years it has been a common practice in the industry “to swap out the core components found in an AR-15/M-16 rifle and replace them with improved or modified components from any of a number of sources.” *Id.*

As originally designed, the M-16 uses a “gas impingement system,” which relies on highly pressurized gas generated by the firing of a round of ammunition to move the bolt carrier in a

¹ These are the only claims covered in Plaintiff's infringement contention chart (Dkt. 5-2).

² March 5, 2010 Declaration of Robert Hirt, Dkt. 20-2 (“Hirt Decl.”), ¶ 4.

breechward direction. *Id.* ¶ 5. The bolt carrier moves back and forth (in a breechward and muzzleward direction) to eject an empty cartridge and permit the loading of a new round into the chamber. *Id.* To permit the gas to act on the bolt carrier, the M-16 uses a “carrier key” that is secured to the bolt carrier by two screws. *Id.* The carrier key, which contains a gas-carrying bore, funnels the gas into the bolt carrier. *Id.* ¶¶ 5, 8; *cf.* ‘624 Patent, Fig. 5 & col. 8, ll. 7-8 (depicting the “OEM [Original Equipment Manufacturer] gas passage”).

The disadvantages of the M-16's gas impingement system are well known. Hirt Decl. ¶ 6; *see also* ‘624 Patent, col. 1, ll. 17-37. Because the system directs pressurized gas (“discharge gas”) into the bolt carrier to activate the bolt carrier, the system exposes parts within the bolt carrier and the upper receiver to heat and to unburned powder particles and carbon. *See* Hirt Decl. ¶ 6; ‘624 Patent, col 1, ll. 17-23. As a result, the M-16 requires heavy lubrication, which can exacerbate the problem by trapping particulate matter. *See* Hirt Decl. ¶ 6; ‘624 Patent, col 1, ll. 23-25. This combination of factors causes the parts to break, wear, or operate improperly absent a stringent maintenance regimen including frequent, regular cleaning. *See* Hirt Decl. ¶ 6; ‘624 Patent, col. 1, ll. 25-35.

Firearms manufacturers have developed alternatives to the M-16’s gas impingement system. Hirt Decl. ¶ 7. Robert Hirt, a Defense Program Manager at Sig Sauer, Inc. with over fourteen years of technical experience in designing and developing firearms, states that the primary alternative is “a gas piston (or cylinder)/operating rod system” in which the discharge gas “is used to move an operating rod in a breechward direction,” and the rod in turn “strikes the bolt carrier, moving it in that same direction.” *Id.* In this design, the rod impacts the bolt carrier “through the use of the carrier key.” *Id.* ¶ 8.

The Prior Art Problems and the '624 Patent

Although not the measure of the rights conferred by the '624 Patent, its written description provides context helpful to an understanding of the claimed invention. Consistent with Hirt's statements, the specification explains that others have developed systems to replace the gas impingement system (what the specification calls the "OEM impingement system"). '624 Patent, col. 1, ll. 38-39. The specification states that some of these existing systems "require that significant portions of the rifle be modified or replaced, such as the barrel and parts within the [upper] receiver." *Id.*, col. 1, ll. 39-41. The specification explains that (a) the cost of such replacements is substantial and unnecessary and (b) if machining is required for installation, machined modifications add expense and delay and introduce the possibility of error with each machining process. *Id.*, col. 1, ll. 42-43.

The specification states that other, improved systems do not require replacement of the M-16's barrel but create problems during disassembly for cleaning and inspection. *Id.*, col. 1, ll. 48-53. The specification explains that these other systems require substantial disassembly of parts of the system (*e.g.*, removal of the hand guard or the gas block) to permit access to the rod assembly or gas plug. *Id.*, col. 1, ll. 54-59; *cf.* col. 3, ll. 48-55. Additionally, the specification states that, to permit removal of the rod assembly from the tight quarters beneath the hand guard, these existing systems must segment the rod, because a single rod would not have the necessary clearance to be removed intact. *Id.*, col. 1, ll. 59-63. In sum, a primary drawback of these improved systems "is the inability to easily disassemble the system in the field, under extreme conditions." *Id.*, col. 3, ll. 39-42.

In light of these shortcomings, the invention is intended to provide a retrofit system that (1) "does not require machined modification or replacement of the barrel and other primary parts of the

rifle,” *id.*, col. 2, ll. 15-16, (2) may be easily assembled and disassembled in the field because it is less complex and has fewer parts, *id.*, col. 2, ll. 17-20, and (3) allows removal of the gas plug and rod for inspection and cleaning “without substantial disassembly of neighboring parts, such as the gas block or hand guard,” *id.*, col. 2, ll. 21-25. Accordingly, the specification states that the invention disclosed in the ‘624 Patent provides a direct drive retrofit system that (a) “does not require modification to the existing core parts of the rifle, such as the stock, barrel, bolt carrier, and such,” *id.*, col. 2, ll. 38-40, and (b) can easily be removed in the field, and (c) permits the removal of the gas plus and rod “without removal of the gas block or hand guard, and, because the rod is a single unit, the rod can be decoupled from the bolt carrier key from the front of the rifle near the gas block,” *id.*, col. 2, ll. 40-47.

The Market Survey Request and the SIG516

In January, 2010, the U.S. Army issued Solicitation No. W15QKN-10-X-0435, an “M4 Carbine Modification Kit Market Survey Announcement” (the “Market Survey Request” [Dkt. 5-1 at 21-23]) seeking submissions from parties with experience in firearms manufacturing to explore testing and possibly qualifying a commercial modification kit for improvements to the M4 carbine.³ The Market Survey Request states that (i) the Army anticipates that the modification kit will “be evaluated as a system and be able to drop in/be installed to stock M4 Carbines,” Dkt. 5-1 at 21; (ii) areas of interest for improvements include the bolt and bolt carrier assembly and the M4’s gas operating system, *id.* at 22; and (iii) the government estimates that it may require 500,000 of the kits, *id.* On the other hand, the Market Survey Request states that it does not constitute a request for proposal and that no award will be made as a result of the survey. *Id.*

³ Apparently, the M4 carbine is a shorter and lighter version of the M-16. *See* Dkt. 5-1 at 10.

In response to the Market Survey Request, Defendant submitted materials including a brochure entitled “SIG 516: AR Platform Tactical Rifles” (the “SIG516 Brochure”).⁴ The SIG516 Brochure extols the SIG516 models as “bring[ing] . . . the SIG Sauer three-position (four position optional) short-stroke gas piston operating system to a true AR platform tactical rifle” and notes that the SIG516 models accept standard M-16 magazines.

Although at the time Plaintiff moved for preliminary injunctive relief, Defendant was not yet (so far as Plaintiff was aware) selling the SIG516, Defendant is now offering it for sale.⁵

Preliminary Injunction Standard

Whether to grant a preliminary injunction under 35 U.S.C. § 283 is a matter largely within the discretion of the trial court. *Titan Tire Corp. v. Case New Holland, Inc.*, 566 F.3d 1372, 1375 (Fed. Cir. 2009). A plaintiff seeking a preliminary injunction must establish “[1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction is in the public interest.” *Id.* at 1375-76 (quoting *Winter v. Natural Res. Def. Council, Inc.*, --- U.S. ---, 129 S. Ct. 365, 374 (2008)). A patentee cannot obtain a preliminary injunction unless it establishes both a likelihood of success on the merits and irreparable harm. *Amazon.com, Inc. v. Barnesandnoble.com*, 239 F.3d 1343, 1350 (Fed. Cir. 2001).

Likelihood of Success

To demonstrate a likelihood of success on the merits on its patent infringement claim, Plaintiff must show that (1) it will likely prove that the SIG516 infringes one or more claims of the

⁴ March 10, 2010 hearing, Plaintiff’s Ex. 1; *cf.* Dkt. 53-1 at 3-6.

⁵ *See* June 24, 2010 Declaration of Scott Pope, Dkt. 55-3, ¶¶ 4, 6; June 24, 2010 Declaration of Richard Morovitz, Dkt. 55-4, ¶¶ 3-7; *cf.* June 10, 2010 Declaration of Jason Adams, Dkt. 53-2, ¶¶ 4-5; Dkt. 49 at 6.

'624 Patent, and (2) that it will likely withstand Defendant's challenge to the validity of the claims. *Titan Tire*, 566 F.3d at 1376. The infringement inquiry has two steps. *Amazon.com*, 239 F.3d at 1351. "[T]he claim scope is first determined, and then the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either literally or by a substantial equivalent." *Id.* "To prove infringement, the patentee must show that the accused device meets each claim limitation either literally or under the doctrine of equivalents." *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 812 (Fed. Cir. 2002).

Claim Construction

The claims of a patent define the limits of the patentee's right to exclude. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). The words of a claim are therefore the proper starting point in claim construction. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The words of a claim are generally given their ordinary and customary meaning as viewed by a person of ordinary skill in the art at the time of the invention, *i.e.*, as of the effective filing date of the patent application. *Phillips*, 415 F.3d at 1312-13. This meaning is determined "by looking first at intrinsic evidence such as surrounding claim language, the specification, the prosecution history, and also at extrinsic evidence, which may include expert testimony and dictionaries." *L.B. Plastics, Inc. v. Amerimax Home Prods., Inc.*, 499 F.3d 1303, 1308 (Fed. Cir. 2007) (citing *Phillips*, 415 F.3d at 1314-19).

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* (quoting *Vitronics*, 90

F.3d at 1582). Indeed, “the claims cannot be broader in scope than the invention that is set forth in the specification.” *On Demand Machine Corp. v. Ingram Indus.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1321). On the other hand, it is generally error to import limitations from the specification into the claims. *See North American Container, Inc. v. Plastipak Packaging, Inc.*, 415 F.3d 1335, 1348 (Fed. Cir. 2005). The Federal Circuit has recognized the tension between these two principles and noted that “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.” *Phillips*, 415 F.3d at 1323.

Claim one of the ‘624 Patent recites

a bolt carrier key, said *bolt carrier key being configured to mount directly to a bolt carrier*, said bolt carrier key moving synchronously with said bolt carrier;

‘624 Patent, col. 9, ll. 9-11.

Defendant persuasively argues that, as used in claim one, a bolt carrier key “configured to mount” directly to a bolt carrier means a bolt carrier key having a structure that enables it to be mounted to a *separate* bolt carrier. This construction is required by the plain meaning of the claim language. Moreover, this construction is consistent with language in another limitation requiring a barrel bore “configured to receive” a separate rifle barrel, *id.*, col. 8, ll. 54-56, and with the specification, which (a) identifies a “bolt carrier key (56)” separate from the “bolt carrier (57)” in its description of the preferred embodiments, *id.*, col. 6, ll. 46-47; col. 8, ll. 6-7.

During oral argument, Plaintiff’s counsel seemingly conceded that the claim language requires a bolt carrier key and a bolt carrier as two separate structures. However, counsel argued that, just as a finger is “mounted” on a hand even though not detachable from the hand, the claim language requiring a bolt carrier key “mounted” to a bolt carrier covers a bolt carrier key that has

been permanently (undetachably) secured to the bolt carrier. Similarly, in its brief, Plaintiff contends that “carrier key being *mounted directly to* a bolt carrier” should be construed to mean “securely affixed or fastened” to a bolt carrier (whether detachably or permanently so) because the ordinary meaning of “*mounted to*” something is “securely affixed or fastened to something else.” (Dkt. 5 at 8).

This argument misstates the claim language and the issue. Claim one does not recite a bolt carrier key “*mounted directly to*” a bolt carrier, but a bolt carrier key “*configured to mount directly to* a bolt carrier.” ‘624 Patent, col. 9, ll. 9-11.⁶ Moreover, Plaintiff provides no support for construing “*configured to mount directly to* a bolt carrier” as equivalent to “*mounted directly to* a bolt carrier.” Because that construction would necessarily render the claim language “configured to” superfluous, *see Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) (“[C]laims are interpreted with an eye toward giving effect to all terms in the claim.”), and because Plaintiff concedes the claim language requires two separate structures, the Court concludes that, as used in claim one, a bolt carrier key “being configured to mount directly to a bolt carrier” means a bolt carrier key having a structure that enables it to be subsequently mounted to a *separate* bolt carrier.

The parties also disagree on whether the preamble to claim one limits the claim. The preamble recites:

A direct drive retrofit system for use with an [sic] a rifle for conversion from an impingement system

‘624 Patent, col. 8, ll. 49-50.

⁶ In the only instance in the ‘624 Patent in which a bolt carrier key is described as “mounted on” a bolt carrier, the “bolt carrier key (56)” is described and depicted as a part mounted on a *separate* “bolt carrier (57)” and joined to it by a dowel protrusion. *See* ‘624 Patent, col. 8, ll. 6-8 & Fig. 5.

“In considering whether a preamble limits a claim, the preamble is analyzed to ascertain whether it states a necessary and defining aspect of the invention, or is simply an introduction to the general field of the claim.” *On Demand Machine Corp.*, 442 F.3d at 1343. “Whether to treat a preamble as a limitation is a determination resolved only on review of the entire[] . . . patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257 (Fed. Cir. 1989). “No litmus test defines when a preamble limits claim scope.” *Catalina Mktg.*, 289 F.3d at 808.

“If . . . the body of the claim fully and intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention's limitations, but rather merely states, for example, the purpose or intended use of the invention, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.” *Pitney Bowes*, 182 F.3d at 1305. Statements of an intended use of an invention are generally not limiting because “the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure.” *Catalina Mktg.*, 289 F.3d at 809. “Indeed, [t]he inventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he had conceived the idea of the use or not.” *Id.* (quoting *Roberts v. Ryer*, 91 U.S. 150, 157 (1875)). That is, “a patent grants the right to exclude others from making, using, selling, offering to sale, or importing the claimed apparatus . . . for any use of that apparatus . . . whether or not the patentee envisioned such use.” *Id.* (citing 35 U.S.C. § 271)).

On the other hand, “a preamble is a claim limitation if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Poly-America, L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1309-10 (Fed. Cir. 2004) (quoting *Pitney Bowes, Inc. v.*

Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999)). Additionally, “when reciting additional structure or steps underscored as important by the specification, the preamble may operate as a claim limitation.” *Catalina Mktg.*, 289 F.3d at 808. Furthermore, “when the limitations in the body of the claim ‘rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.’” *Bicon*, 441 F.3d at 952 (quoting *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003)).⁷

Plaintiff contends that the preamble to claim one does not define the invention claimed but simply states a purpose or intended use of the system, while the structure of the direct drive system is fully set forth in the body of the claim. In response, although acknowledging that the preamble of a claim is presumed not to limit its scope, Defendant contends that the preamble to claim one is limiting.

First, Defendant contends that limitations in the body of the claim derive antecedent basis from the preamble. Specifically, the phrase “said rifle” appears in two limitations of claim one, ‘624

⁷ In *Bicon*, the Federal Circuit applied these principles to a claim for a cuff for use in dental prosthesis implantation that separated the gum from the implant to permit healing. The preamble recited

An emergence cuff member for use in preserving the interdental papilla during the procedure of placing *an abutment* on a root member implanted in the alveolar bone of a patient in which *the abutment has a frusto-spherical basal surface portion and a conical surface portion having a selected height extending therefrom*

441 F.3d at 948 (emphasis added).

In addition to being mentioned in the preamble, the abutment’s physical features were referred to in the body of the claim: the emergence cuff had an internal bore “having a taper generally matching that of the conical surface portion of the abutment,” *id.*, and required that “the distance between the first and second ends [of the emergence cuff be] less than the height of the conical surface” of the abutment, *id.* at 948-49.

The Federal Circuit concluded that, in view of the detailed description of the abutment’s structure in the preamble and the references to the abutment in the body, the claim as a whole was for an emergence cuff used in conjunction with an abutment having the features recited in the preamble. *Id.* at 952. In rejecting the plaintiff’s argument that the preamble was not limiting, the Federal Circuit noted that (a) the preamble did not merely state the purpose or use of the invention but recited structural elements of the abutment, *id.* at 952, and (b) instead of reciting the complete invention, the body “refer[red] back to the features of the abutment described in the preamble, so that the references to the abutment in the body of the claim derive their antecedent basis from the preamble,” *id.* at 953.

Patent, col. 8, ll. 56-58, 65-67 (as well as one limitation of claim six, *id.*, col. 10, ll. 28-30). Defendant argues that the phrase must refer to the “rifle” referenced in the preamble (“a direct drive retrofit system for use with an [sic] *a rifle* . . .”) because the phrase has no antecedent in the body of the claim. Significantly, however, Defendant identifies no structural limitation that the “rifle” in the preamble imposes on the claim terms referring to it.⁸ This omission highlights an important distinction between claim one and the claim at issue in *Bicon*.

The preamble in *Bicon* provided a detailed description of the structural features of the abutment referred to in the body of the claim, and the body of the claim required reference to that description for intelligibility. Here, by contrast, the preamble to claim one recites “a rifle” without further defining or describing the rifle, or at least without doing so expressly. Moreover, the references in the body of the claim to (a) a “barrel bore having an aperture being configured to receive a discharge gas from a gas port formed through said barrel proximate to *a muzzle of said rifle*,” ‘624 Patent, col. 8, ll. 56-58, and (b) a gas plug bore “having . . . a breech end opening towards *a breech of said rifle*,” *id.*, col. 8, ll. 65-67, appear to refer to physical features (the muzzle and breech) of *any* rifle. In light of the specification, the barrel bore and the gas plug bore recited would remain fully intelligible and unambiguous if the words “of said rifle” were deleted, leaving only “a muzzle” and “a breech.” Said differently, the prepositional phrase “of said rifle” adds nothing to the claim limitations. Additionally, Plaintiff concedes that the “rifle” of the preamble is not part of the

⁸ Compare *Bell Commc’ns Research, Inc. v. Vitalink Commc’ns Corp.*, 55 F.3d 615, 621 (Fed. Cir. 1995) (where (1) preamble recited a “method for transmitting a packet over a system comprising a plurality of networks . . . said packet including a source address and destination address,” and (2) the body of the claim recited the steps of “assigning, by said source device, one of said trees to broadcast *said* packet and associating with said packet an identifier indicative of said one of said trees,” the steps of the claimed method, “by referring to ‘said packet,’ expressly incorporate by reference the preamble phrase ‘said packet including a source address and a destination address.’”).

claimed apparatus. *See* Dkt. 48 at 3.

Moreover, although contending that the preamble imposes a structural limitation on the claim and “recites essential structure” (Dkt. 48 at 2), Defendant fails to identify the structure in question. Instead, Defendant merely reiterates that the preamble describes a direct drive retrofit system “for use” in converting a rifle. *Id.* at 3. Defendant’s inability to identify the structure purportedly imposed by the preamble confirms that the preamble language is most naturally construed as describing a purpose or use of the structure described in the body, not as reciting additional structure.

Defendant argues that each dependent claim’s reference back to the “direct drive retrofit system of claim 1” further supports the conclusion that claim one is limited to the drive retrofit system recited in the preamble. *See Poly-America*, 383 F.3d at 1310 (preamble was limiting where the specification was “replete with references to the invention as a ‘blown-film’ liner,” the phrase was “used repeatedly to describe the preferred embodiments,” and “the entire preamble ‘blown-film textured liner’ [was] *restated in each of the patent’s seven claims.*”) (emphasis added). However, whereas the phrase “‘blown-film’ liner” in *Poly-America* evidently referred to a structural feature of the claimed landfill liner (namely, its having a smooth inner layer bonded to textured outer layers), *see* 383 F.3d at 1306, in the phrase “retrofit system,” the adjective “retrofit” does not appear to refer to any structural element of the claimed invention, but is evidently derived from the invention’s intended use, *i.e.*, to convert a rifle from an impingement system to a gas-piston system.

Second, Defendant contends that the remaining limitations in the body of claim one can only be understood in the context of the preamble’s “retrofit system” because the claim repeatedly recites components “‘configured to’ adapt to the parts of an existing rifle.” Dkt. 20 at 15. Specifically, the claim recites (a) a barrel bore “configured to receive a barrel securely inserted therein,” ‘624 Patent,

col. 8, ll. 55-56, and (b) a bolt carrier key “configured to” mount to a bolt carrier, *id.* col. 9, ll. 9-10.

The Court agrees to this extent. This use of the phrase “configured to” in the body of the claim indicates that the invention’s components and the invention as a whole are designed to work with other parts of an M-16 rifle. However, Defendant fails to adequately explain why a person of ordinary skill in the art would construe components “configured to” receive or mount to other parts of a rifle as limited to components adapted for use with or capable of being used with a previously manufactured, fully assembled M-16. Hirt avers that an M-16 rifle may be built from the ground up using components from a number of manufacturers and that it is a common practice in the industry “to swap out the core components found in an AR-15/M-16 rifle and replace them with improved or modified components from any of a number of sources.” Hirt Decl. ¶ 4. Moreover, the specification states that some prior art systems required replacement of significant portions of the M-16, “such as the *barrel* and parts within the receiver.” ‘624 Patent, col. 1, ll. 39-41 (emphasis added).

In light of the industry practice of swapping out or replacing core parts of the AR-15/M-16 rifle and the possibility of building an M-16 from the ground up with components from various manufacturers, Defendant does not adequately explain why, for example, a barrel bore may not be “configured to receive a [rifle] barrel securely inserted therein” even if the barrel is simultaneously or subsequently manufactured (*e.g.*, as an improvement or alternative to the stock M-16 rifle barrel). In sum, in light of the modular nature of the M-16 rifle, the Court is not persuaded that the remaining limitations of claim one cannot be understood except as components of a system for retrofitting a previously manufactured, fully assembled M-16.

Third, Defendant contends that the preamble must be limiting because the specification

demonstrates that “a retrofit system” is an important “feature” of the invention. Dkt. 20 at 15. Again, Defendant does not explain precisely what the feature is. However, Defendant contends that, “from the title of the patent through the specification and claims, the ‘624 patent *only* refers to the invention as a retrofit system for converting the impingement system on an AR-15/M-16 rifle to a gas piston system.” Dkt. 20 at 15. Defendant cites (1) the title of the ‘624 Patent (“Direct Drive Retrofit for Rifles”),⁹ (2) the Summary of the Invention, ‘624 Patent, col. 2, ll. 32-33, and (3) the section entitled Objects of the Invention, ‘624 Patent, col. 2, ll. 11-28, which repeatedly describes the “the ‘present invention’ as providing a ‘retrofit system.’” Dkt. 20 at 15.

Defendant’s characterization is generally accurate. However, the specification’s consistent description of the invention as a “system” to replace the M-16’s impingement system also underscores the fact that the invention is presented throughout as a complete assembly, albeit one designed to operate with other parts of an M-16 rifle. The drawings, which depict the system or its preferred embodiment in most instances by itself, *see* ‘624 Patent, Figs. 1, 2, & 4 and col. 6, ll. 11-19), and in all instances without a fully assembled rifle, further highlight this fact. *Cf.* 37 C.F.R. § 1.83 (“The drawing in a nonprovisional [patent] application must show every feature of the invention specified in the claims.”). In sum, the specification consistently refers to “the invention,” not merely its preferred embodiments, as or as providing a “retrofit” system. On the other hand, the specification’s description and depiction of the invention as a complete assembly support the conclusion that, although designed for conversion of an existing M-16 rifle from an impingement system, the specification does not present an M-16 rifle as a component of the invention.

⁹ *But see Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1312 (Fed. Cir. 1999) (noting “[t]he near irrelevancy of the patent title to claim construction”); *Moore U.S.A., Inc. v. Standard Register Co.*, 229 F.3d 1091, 1111 (Fed. Cir. 2000) (“[T]he bar on importing limitations from the written description into the claims applies no less forcefully to a title.”).

After considering the parties' arguments and the '624 Patent as a whole, the Court concludes that the preamble is limiting, if at all, only to the extent that it indicates the environment ("a rifle") in which the invention operates.

First, by itself, the preamble's "direct drive retrofit system . . . for conversion from an impingement system" states an intended use or purpose of the system—to convert an M-16 rifle from an impingement system to a gas piston system. Second, the preamble recites no additional structure underscored as important by the specification. Third, although the term "rifle" in the preamble does provide the grammatical antecedent of two terms used in the body, the preamble does not define or explain any disputed or ambiguous or important claim terms.¹⁰ Rather, to the extent the term "rifle" does more than help describe the inventions's intended use, it describes the environment in which the invention is designed to operate. As Defendant concedes, the term does not describe a component of the invention.

Literal Infringement

Claim one, the only independent claim of the '624 Patent, does not read on the SIG516 because the SIG516 does not have a bolt carrier key having a structure that enables it to be subsequently mounted to a *separate* bolt carrier.

The Court notes that the substance of the parties' dispute is not whether the SIG516 contains a bolt carrier key. Hirt states that the SIG516 does not use a carrier key, Hirt Decl. ¶ 9,¹¹ (or at least not a "separate" carrier key, *id.* ¶ 12) and that, in the SIG516, the rod used to activate the bolt carrier

¹⁰ See also *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339-40 (Fed. Cir. 2003) (preamble was limiting where a step of the claimed method referred to "said vehicle master clutch" and "said drive train" and the step required manipulation, not of any clutch or drive train, but of the particular clutch and drive train described in the preamble).

¹¹ See also Dkt. 20 at 13 n.12.

strikes the bolt carrier directly, *id.* ¶ 9. However, Plaintiff presents uncontroverted evidence that the SIG516 has a bolt carrier with a projection (described by Jason Adams, Vice President of New Product Development for Plaintiff and the inventor of the apparatus claimed in the ‘624 Patent, as a “fin-like structure”¹²) that, like claim one’s bolt carrier key, provides a striking surface for the rod, which is located on a higher plane, by which the force of the rod is transferred to a bolt carrier located (except for the projection) on a lower plane.¹³ Although it makes little difference whether the projection is termed a permanently affixed key (as an employee of Defendant described it in an audiovisual exhibit to Plaintiff’s motion), an “integrated carrier key” (as Plaintiff terms it, Dkt. 5 at 7), a “striking surface” (as Hirt terms it, Hirt Decl. ¶ 15), or a “striking plate” (as Defendant terms it, Dkt. 20 at 13) on the SIG516 bolt carrier, this order will refer to it as an integrated carrier key for the sake of consistency. However termed, the projection is not an object having a distinct structure that permits it to be affixed or secured to a separate bolt carrier. Instead, the projection is an integral part of the SIG516 bolt carrier. *See* Adams Supp. Decl. ¶¶ 18, 20.

Infringement by Equivalents

“Under the doctrine of equivalents, ‘a product . . . that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is equivalence between the elements of the accused product . . . and the claimed elements of the patented invention.’” *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1357 (Fed. Cir. 2005) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997)).

“Under the insubstantial differences test, ‘[a]n element in the accused device is equivalent

¹² March 10, 2010 Supplemental Declaration of Jason Adams (“Adams Supp. Decl.” [Dkt. 34-1]) ¶ 18.

¹³ *See* Adams Supp. Decl. ¶¶ 18-19 and Ex. 4; Hirt Decl. ¶ 15; February 12, 2010 Declaration of Jason Adams (“Adams Decl.” [Dkt. 5-1]) ¶ 7; Declaration of Mike Curlett, Dkt. 5-3, at 2-3.

to a claim limitation if the only differences between the two are insubstantial.” *Voda v. Cordis Corp.*, 536 F.3d 1311, 1326 (Fed. Cir. 2008) (quoting *Honeywell Int’l Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004)). “Alternatively, under the function-way-result test, an element in the accused device is equivalent to a claim limitation if it ‘performs substantially the same function in substantially the same way to obtain substantially the same result.’” *Id.* (quoting *Schoell v. Regal Marine Indus., Inc.*, 247 F.3d 1202, 1209-10 (Fed. Cir. 2001)). The function-way-result test may be particularly suitable for analyzing mechanical devices. *Warner-Jenkinson Co., Inc.*, 520 U.S. at 39-40.

Because the doctrine of equivalents adds uncertainty to the scope of patent claims, the doctrine is subject to various limiting doctrines. *Freedman Seating Co.*, 420 F.3d at 1358. The all-elements rule requires that infringement under the doctrine of equivalence be assessed on a limitation-by-limitation basis. *See Warner-Jenkinson*, 520 U.S. at 29 (“Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole.”).

As a corollary of the all-elements rule, “an element of an accused product or process is not, as a matter of law, equivalent to a limitation of the claimed invention if such a finding would entirely vitiate the limitation.” *Freedman Seating Co.*, 420 F.3d at 1358 (citing *Warner-Jenkinson*, 520 U.S. at 29) (“It is important to ensure that the application of the doctrine [of equivalents], even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety.”).

Finally, under the disclosure dedication rule, “a patent applicant who discloses but does not

claim subject matter has dedicated that matter to the public and cannot reclaim the disclosed matter under the doctrine of equivalents.” *PSC Computer Prods., Inc. v. Foxconn Int’l, Inc.*, 355 F.3d 1353, 1355-56 (Fed. Cir. 2004). The test for determining whether unclaimed subject matter has been dedicated to the public is whether “one of ordinary skill in the art can understand the unclaimed disclosed teaching upon reading the written description.” *Id.* at 1360. If the disclosure “is of such specificity that one of ordinary skill in the art could identify the subject matter that had been disclosed and not claimed,” that subject matter has been dedicated to the public and may not be reclaimed under the doctrine of equivalents. *Id.*

Plaintiff contends that the SIG516’s integrated carrier key infringes under the function-way-result test. Plaintiff argues that the sole function of the ‘624 Patent’s bolt carrier key is to provide a striking surface for the rod by which the force of the rod is transferred to a bolt carrier located on a lower plane in rapid succession to discharge spent shells and reload live rounds from the magazine. Plaintiff argues that the SIG516’s integrated carrier key performs the same function, and that the only difference between the two carrier keys is the fact that the SIG516’s carrier key, instead of being separately attached by way of a pressure fitted dowel rod, has been forged to the bolt carrier (or the two have been manufactured together as one piece). Plaintiff contends that this difference is insubstantial because it is not the manner in which the two keys are affixed to the bolt carrier but their structural integrity or rigidity that enables each carrier key to perform the function described. Jason Adams avers that one skilled in firearms engineering would know that the function could be performed “by either manufacturing one piece that contains both the bolt carrier and the carrier key or by assembling the two pieces together.” Adams Decl. ¶ 7.

In response, Defendant first argues that the disclosure dedication rule precludes Defendant

from claiming equivalence with the SIG516 bolt carrier (with its integrated carrier key). The Court agrees. The specification criticizes as inferior prior art systems that required replacement or machined modification of the barrel and parts within the upper receiver. *Id.*, col. 1, ll. 39-43.both.¹⁴ Accordingly, the specification states as an object of the invention the provision of a retrofit system that “does not require machined modification or replacement of the barrel and other primary parts of the rifle.” *Id.*, col. 2, ll. 15-16. The Court finds that this disclosure of an alternative system for converting the M-16 impingement system requiring replacement or machined modification of the rifle’s primary parts is sufficiently specific to disclose a system that requires replacement or machined modification of *the bolt carrier*. In sum, because the specification discloses a direct drive system that requires replacement or machined modification of the bolt carrier, and the patentee failed to claim that system, Plaintiff cannot reclaim under the doctrine of equivalents a bolt carrier and carrier key manufactured together as one piece.

Defendant next argues that the SIG516 bolt carrier (with its integrated carrier key) fails the function-way-result test. Defendant contends that the relevant function of the claim limitation at issue (a “bolt carrier key *configured to mount* directly to a bolt carrier”) is not to transfer force from the rod to the bolt carrier but to allow for a retrofit system that, unlike the criticized prior art systems, does not require machined modification or replacement of the bolt carrier. Dkt. 20 at 12. Defendant contends that, far from performing that function, the SIG516 bolt carrier key (with its integrated carrier key) actually practices the criticized prior art. The Court agrees that an important function of the claimed carrier key is to permit attachment to a *separate* bolt carrier. The SIG516's integrated

¹⁴ See also ‘624 Patent, col. 2, ll. 38-40 (“The present invention provides a retrofit system that *does not require modification* to the existing core parts of the rifle, such as the stock, barrel, *bolt carrier*, and such.”) (emphasis added).

carrier key does not perform that function.

Finally, Defendant argues that, even if the relevant function of the limitation is to provide a striking surface for the rod, the SIG516 performs the function in a substantially different way with “demonstrably” different results. *Id.* at 13. More specifically, Hirt avers that (1) the OEM M-16 bolt carrier key was not designed to handle high stress and a heavy load, because its purpose was merely to funnel discharge gas into the bolt carrier, Hirt Decl. ¶ 8, and (2) in a gas piston system, “based upon the analysis we¹⁵ performed, the high stress and heavy load on the carrier key results in wear and tear of the screws that are used to mount the carrier key to the bolt carrier,” *id.* ¶ 9. As a result, in Hirt’s opinion, a gas piston system utilizing a separate carrier key “is not commercially practical because the screws eventually shear.” *Id.*

Although invited by the Court’s May 10, 2010 order (Dkt. 46) to supplement Hirt’s statement, Defendant failed to elaborate as to the “analysis” vaguely referenced by Hirt or to explain the applicability of Hirt’s general assertion to, for example, a bolt carrier key attached by way of a pressure fitted dowel rod (rather than by screws). Defendant does, however, provide some evidence that persons in the industry have asserted that a separate carrier key is unable to withstand the repeated impact of a gas-piston system’s operating rod. *See* Dkt. 48-2 at 1; Dkt. 48-3 at 2; Dkt. 84-4 at 9.¹⁶ Although the declarants do not provide much information about the basis for their belief, this

¹⁵ Apparently, Hirt refers to himself and other researchers at Heckler & Koch, where he was employed until September 2009, Hirt. Decl. ¶ 3, and where he “was part of the development and trial team on the HK416 project, which was one of the first piston push rod systems developed in 1998,” *id.* ¶ 10.

¹⁶ “At the preliminary injunction stage, a district court may rely on affidavits and hearsay materials which would not be admissible evidence for a permanent injunction, if the evidence is ‘appropriate given the character and objectives of the injunctive proceeding.’” *Levi Strauss & Co. v. Sunrise Int’l Trading Inc.*, 51 F.3d 982, 985 (11th Cir. 1995) (quoting *Asseo v. Pan American Grain Co.*, 805 F.2d 23, 26 (1st Cir. 1986)). Citing a web page (no copy of which is attached), counsel also asserts that Plaintiff itself no longer uses a separate carrier key in its product, but instead includes a modified bolt carrier with an integrated carrier key. The Court will disregard this unsworn assertion, which in any event provides, by itself, no reliable basis for any inference about the structural integrity of a

evidence does lend some weight to Defendant's contention that the difference in the manner in which the SIG516's integrated carrier key transfers force to the bolt carrier is not insubstantial.

In sum, the Court agrees that Plaintiff is not reasonably likely to succeed in establishing under the doctrine of equivalents that the SIG516's integrated carrier key infringes the mountable key limitation in claim one of the '624 Patent because (a) the patentee dedicated to the public the subject matter of a direct drive system that requires replacement or machined modification of the OEM bolt carrier, and the SIG516's integrated carrier key is forged in one piece with the bolt carrier (*i.e.*, is the result of a replacement or machined modification of the OEM bolt carrier); (b) an important function of the claimed carrier key is to permit attachment to a separate bolt carrier, whereas the SIG516's integrated carrier key does not perform that function; and (c) the limited evidence presented suggests that the structural difference between the SIG516 integrated carrier key and the '624 Patent's separate bolt carrier key may affect the carrier key's ability to efficiently and reliably transfer force to the bolt carrier.

Validity

Because patents are presumed valid, 35 U.S.C. § 282, a defendant asserting invalidity as an affirmative defense bears the burden of proving invalidity by clear and convincing evidence at trial. *Titan Tire*, 566 F.3d at 1376. In the preliminary injunction context, once an alleged infringer presents evidence of invalidity, the movant must respond with contrary evidence and bears the burden of persuading the court that, "despite the challenge presented to validity, the [movant] nevertheless is likely to succeed at trial on the validity issue." *Id.* at 1377. "[I]f the trial court concludes there is a 'substantial question' concerning the validity of the patent, meaning that the

separate carrier key.

alleged infringer has presented an invalidity defense that the [movant] has not shown lacks substantial merit, it necessarily follows that the patentee has not succeeded in showing it is likely to succeed at trial on the merits of the validity issue.” *Id.* at 1379. Said differently, after reviewing the available evidence, the court must determine “whether it is more likely than not that the challenger will be able to prove at trial, by clear and convincing evidence, that the patent is invalid.” *Id.*¹⁷

Obviousness

Defendant contends that the ‘624 Patent is invalid for obviousness based on a combination of several prior art references. “Obviousness is a question of law based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention as perceived before the time of invention; and (4) the extent of any objective indicia of non-obviousness.” *Rolls-Royce, PLC v. United Techs. Corp.*, 603 F.3d 1325, 1338 (Fed. Cir. 2010) (citing *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 881 (Fed. Cir. 1998)). “If a person of ordinary skill, before the time of invention and without knowledge of that invention, would have found the invention merely an easily predictable and achievable variation or combination of the prior art, then the invention likely would have been obvious.” *Id.* (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417, 421 (2007)).

Although “a patent composed of several elements is not proved obvious merely by

¹⁷ At the preliminary injunction stage, “the alleged infringer . . . does not need to prove invalidity by the ‘clear and convincing’ standard that will be imposed at trial on the merits.” *Titan Tire*, 566 F.3d at 1379. “Validity challenges during preliminary injunction proceedings can be successful, that is, they may raise substantial questions of invalidity, on evidence that would not suffice to support a judgment of invalidity at trial.” *Amazon.com*, 239 F.3d at 1358. However, “[t]he fact that, at trial on the merits, the proof of invalidity will require clear and convincing evidence is a consideration for the judge to take into account in assessing the [alleged infringer’s] case.” *Titan Tire*, 566 F.3d at 1380.

demonstrating that each of its elements was, independently, known in the prior art,” *KSR*, 550 U.S. at 418, a “combination of familiar elements according to known methods” is likely to be obvious when it “does no more than yield predictable results.” *KSR*, 550 U.S. at 416. A combination yields predictable results when one of ordinary skill in the art “would have had reason to attempt to make the composition or device . . . and would have had a reasonable expectation of success in doing so.” *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007). “[A]ny need or problem known in the field of the endeavor at the time of the invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR*, 550 U.S. at 418. For example, “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *Id.*

In its motion for a preliminary injunction, Plaintiff anticipated (based on prior correspondence between the parties and prior art references supplied by Defendant) that Defendant would argue that the claims of the ‘624 Patent are obvious in view of two prior art references (and the prior art weapons discussed therein): (a) an article discussing the L85A1 and L86A1 versions of the SA80 rifle, which is apparently a standard issue service rifle in the United Kingdom,¹⁸ and one that has been in use for more than twenty years, Hirt Decl. ¶ 10, and (b) an illustration of Defendant’s SIG550, SIG551, and SIG556 (together, the “SIG550 series rifles”) rifles.

Plaintiff distinguishes the SA80 rifles on two grounds. First, while the SA80 rifles utilize a rod segmented into several parts, the ‘624 Patent’s rod is a single-piece design. Second, the rod

¹⁸ See Dkt. 5-1 at 9-10.

in the SA80 rifles is removable through the hand guard rather than from the muzzle end of the rifle. Plaintiff distinguishes the SIG550 series rifles on the grounds that they teach a standard rather than an inverted piston (rod and sleeve) and they do not teach “withdrawability.”¹⁹

In response, Defendant contends that the segmented rod does not distinguish the SA80 rifles because the ‘624 Patent covers a rod as a “single part *or* a securely connected assembly” (emphasis added). ‘624 Patent, col. 9, ll. 12-13; *see also* ‘624 Patent, col. 4, ll. 9-14 (stating in the summary section of the specification that the rod is a single piece design, which, although preferably machined from a single piece of material, may be formed of several pieces bonded in a permanent or semipermanent manner by welding or fastening processes, “so that the rod acts and remains intact as one part.”). Additionally, although conceding that the SA80 rifles did not teach withdrawing the rod from the muzzle end of the rifle, Defendant argues that the Hochstrate reference, WO 2008/060310 A2, does, and asserts that combining this teaching with the SA80’s inverted piston design “would have constituted nothing more than the predictable use of elements according to their known functions.” Dkt. 20 at 17 (citing *KSR*, 127 S. Ct. at 1734).

As to the SIG550 series rifles, Hirt avers that the SIG550, available since the early 1980s, incorporates (like the invention claimed in the ‘624 Patent) a gas piston/operating rod system.²⁰ Defendant concedes the SIG550 series rifles lack the inverted piston (rod and sleeve) and withdrawability of the invention claimed in the ‘624 Patent. However, Defendant notes that

¹⁹ Additionally, Plaintiff asserts that the the SIG550 series rifles do not use a bolt carrier key. Dkt. 5 at 17; *see also* Adams Supp. Decl. ¶ 19; Hirt Decl. ¶ 9. However, as the stock version of the M-16 employs a bolt carrier key, use of a bolt carrier key in an M-16 rifle platform would be obvious to a person of ordinary skill in the pertinent art.

²⁰ Additionally, Hirt avers in conclusory fashion that, “based upon the review we have performed to date, with respect to the aspects of the rifle accused by [Plaintiff], the SIG516 is materially the same as the SIG550, SIG551, and SIG556 rifles.” Hirt. Decl. ¶ 13.

Hochstrate teaches withdrawability and a one-piece operating rod and argues that Hochstrate provides the reason to combine these design features with the SA80 rifle features by identifying a known problem in the art. *See KSR*, 550 U.S. at 420 (“One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.”). Specifically, Hochstrate teaches that “disassembly and assembly of the operating rod may be required in order to remove the barrel, and that removal of the components in sequence, rather than as one piece, is not desirable.” (Dkt. 48 at 5) (citing Hochstrate [Dkt. 20-1] ¶ 2). Although this problem may suggest the desirability of a one-piece removable operating rod, Defendant does not explain how it renders obvious the combination of these features with an inverted piston design. Apparently, Defendant means that common sense would enable the person of ordinary skill in the art to see both the desirability of a one-piece removable operating rod and the advantage of combining it with another well-known design, the inverted piston (rod and sleeve) design.

As Plaintiff had no earlier opportunity to address the Hochstrate reference, the May 10, 2010 order directed Plaintiff to address whether the ‘624 Patent is invalid as obvious in view of the prior art rifles and the Hochstrate reference because combining features of one or more of the prior art rifles with Hochstrate’s teaching of withdrawability would have been obvious to a person of ordinary skill in the art.

In response, Plaintiff does not contest that Hochstrate teaches withdrawing a gas piston assembly from the muzzle end of the rifle. Instead, Plaintiff argues that (a) Defendant identifies no motivation or reason that would induce a person of ordinary skill in the art to combine Hochstrate with the SA80 design; and (b) Plaintiff presents no evidence as to the pertinent level of skill in the

art or (if the affidavit of Hirt impliedly evidences the pertinent level of skill) no evidence that such a person would find the combination obvious. Additionally, Plaintiff shows that, although during the prosecution of a continuation application of the '624 Patent the examiner considered the prior art previously supplied by Defendant regarding the SA80 and SIG550 series rifles, the United States Patent and Trademark Office ("USPTO") has issued a notice of allowance of all claims in the application.²¹ Moreover, following the issuance of the notice of allowance, Plaintiff submitted and the examiner considered the Hochstrate reference, but the notice of allowance was not withdrawn and Plaintiff's patent counsel expects the claims to issue in due course. Pippenger Decl. ¶¶ 7-8.

Plaintiff argues that, in view of the similarity of the claims, the USPTO's determination to issue the second patent notwithstanding the SA80 and SIG550 prior art references and the USPTO's omission to withdraw the notice of allowance after consideration of the Hochstrate reference indicate that the USPTO would not consider the claims of the '624 Patent obvious. On the other hand, Defendant shows that the World Intellectual Property Organization found similar claims in a related foreign patent application submitted by Jason Adams, No. WO 2009/064327 A2, to be unpatentable over a different Hochstrate reference, US 2006/0033851, that Plaintiff never provided to the USPTO (and that no party has submitted here). *See* Dkt. 48 at 6; Dkts. 48-6, 48-7.

The Court concludes that Defendant has succeeded in raising a substantial question as to the validity of the '624 Patent, and that Plaintiff has not shown the defense lacks substantial merit. As Plaintiff does not dispute that Hochstrate teaches withdrawability and a one-piece operating rod, the question is whether a person of ordinary skill in the art (*i.e.*, a person with experience in the design and development of rifles and substantial knowledge concerning the AR-15/M-16 rifle design and

²¹ May 18, 2010 Declaration of Robert S. Pippenger, Dkt. 47-1 ("Pippenger Decl.") ¶¶ 4-6.

problems associated with that design²²) would have had reason to combine those features with the inverted piston (rod and sleeve) design of the SA80 prior art rifles.²³ The Court finds that Defendant has raised a substantial question whether the advantage of the inverted piston design, in view of the discussion in the SA80 prior art reference, would be sufficiently obvious that combining that design feature with a single-piece operating rod removable from the muzzle end of the rifle would also be obvious to a person of ordinary skill in the art.

Irreparable Harm

“At the preliminary injunction stage, irreparable harm consists of harm that could not be sufficiently compensated by money damages or avoided by a later decision on the merits.” *Canon, Inc. v. GCC Int’l Ltd.*, 263 F. App’x. 57, 62 (Fed. Cir. 2008) (citing Dan B. Dobbs, *Law of Remedies* 193-94 (2d ed. 1993)). The Federal Circuit has held that a strong showing of a likelihood of success on the merits of a patent infringement claim, together with continuing infringement, gives rise to a rebuttable presumption of irreparable harm. *See, e.g., Reebok Int’l Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1556 (Fed. Cir. 1994). The presumption serves as “a procedural device which shifts the ultimate burden of production on the question of irreparable harm [from the patentee] onto the

²² The Court agrees with Defendant that, notwithstanding the limited record evidence regarding the level of skill in the art, the evidence of problems encountered in the art, *see* Hirt Decl. ¶ 6, prior art solutions, *see id.* ¶¶ 7-12 & Tab B (Dkt. 20-2 at 13-25); Dkt. 20-1 at 17-110, and Hirt’s level of skill, Hirt Decl. ¶ 3; *cf.* Adams Decl. ¶ 7, sufficiently supports a finding that one of ordinary skill would have significant experience with the design and development of rifles and substantial knowledge concerning the AR-15/M-16 rifle design and problems associated with that design.

²³ Neither party explains precisely what the inverted piston (rod & sleeve) feature is or what limitation it corresponds to in the ‘624 Patent. However, a consideration of Adams’s Declaration, Adams Decl. ¶ 6, Hirt’s drawing of the SA80 design, Hirt Decl. ¶ 11, the prior art reference describing the SA80 rifles (which contained the inverted piston design), *see* Dkt. 5-1 at 19, and the actuating means in claim 2 of the ‘624 Patent (which appears to be essentially identical with claim 1’s actuating means in light of 35 U.S.C. § 112, ¶ 6 and the corresponding structure in the specification, *see Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed Cir. 1991) (holding that the doctrine of claim differentiation must yield to an interpretation mandated by Section 112, ¶ 6)) suggests that the inverted piston (rod & sleeve) design allows the discharge gas to exit at the muzzle end of the rifle.

alleged infringer.” *Id.*

However, the United States Supreme Court called into question the decisions recognizing this presumption in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006). In *eBay*, the Court rejected the Federal Circuit’s “general rule” that “a permanent injunction will issue once infringement and validity have been adjudged” and should be denied only in “exceptional circumstances.” *eBay*, 547 U.S. at 393-94. Finding no reason in the Patent Act for departing from traditional equitable principles governing requests for injunctive relief, the Court found the Federal Circuit rule inconsistent with the traditional four-factor test for a permanent injunction. *Id.* at 391-94.

By rejecting the presumption of irreparable harm in the permanent injunction context, *eBay* also created doubts whether irreparable harm may be presumed at the preliminary injunction stage upon a strong showing of a likelihood of success on the merits. The Federal Circuit suggested in one post-*eBay* decision that the presumption may still apply. *See Abbott Labs. v. Andrx Pharm., Inc.*, 452 F.3d 1331, 1347-48 (Fed. Cir. 2006). However, in a recent unpublished decision, *Automated Merch. Sys., Inc. v. Crane Co.*, 357 F. App’x. 297, 301 (unpublished), a panel of the Federal Circuit stated that *eBay* “discarded” the presumption of irreparable harm. Accordingly, the panel held that “[t]he burden is now on the patentee to demonstrate that its potential losses cannot be compensated by monetary damages.” *Id.*

“[L]ost sales standing alone are insufficient to prove irreparable harm; if they were, irreparable harm would be found in every case involving a ‘manufacturer/patentee, regardless of circumstances.’” *Automated Merch. Sys.*, 357 F. App’x. at 300-301 (quoting *Abbott Labs. v. Andrx Pharms., Inc.*, 452 F.3d 1331, 1348 (Fed. Cir. 2006)). By contrast, because the resulting injury is

difficult to calculate, loss of market share to an infringing competitor and irreversible price erosion can support a finding of irreparable harm. See *Polymer Techs., Inc. v. Bridwell*, 103 F.3d 970, 975-76 (Fed. Cir. 1996); *Canon*, 263 F. App'x. at 62. However, “lost market share must be proven (or at least substantiated with some evidence) in order for it to support entry of a preliminary injunction” *Automated Merch. Sys.*, 357 F. App'x. at 301 (quoting *Nutrition 21 v. United States*, 930 F.2d 867, 871 (Fed. Cir. 1991)). Additionally, although harm resulting from lost market share is often difficult to calculate, no presumption exists that lost market share is not compensable in money damages. See *Nutrition 21*, 930 F.2d at 871.

Furthermore, although not categorically precluding injunctive relief, see *eBay*, 547 U.S. at 393, a pattern of granting licenses suggests that any injury to the patentee during the pendency of the litigation is compensable in damages. See *High Tech Med. Instrumentation, Inc. v. New Image Indus., Inc.*, 49 F.3d 1551, 1557 (Fed. Cir. 1995); *Bridwell*, 103 F.3d at 974. Besides suggesting that a patentee is willing to forgo its statutory right to exclude in return for monetary compensation, licensing suggests that monetary damages may be comparatively easy to calculate. See *Wilson Sporting Goods Co. v. Head Sports Inc.*, No. 94 C 4966, 1994 WL 702611, at *7 (N.D. Ill. Dec. 14, 1994); *Wang Labs Inc. v. Mitsubishi Elec. America Inc.*, 29 U.S.P.Q.2d 1481, 1501 (C.D. Cal. 1993); 7 Chisum on Patents § 20.04[1][e][v] (2005). Finally, reputational harm may also support a finding of irreparable harm. See *Reebok Int'l Ltd. v. J. Baker, Inc.*, 32 F.3d at 1558.

The Court finds that Plaintiff has failed to demonstrate a likelihood of irreparable harm absent preliminary injunctive relief. First, to the extent the alleged harm is based on a potential Army contract, Plaintiff has not demonstrated by record evidence that the harm is likely to occur during the pendency of this lawsuit. The Market Survey Request states that it is not a request for

proposal and will not result in an award. Furthermore, Plaintiff's suggestion that the "winner" of the Market Survey (or a resulting procurement bid) may become a major weapon supplier for the Army is speculative and supported mainly by unverified assertions about the good fortune of a previous supplier in winning a no-bid Army contract and about the Army's current procurement needs.

Second, and more important, to the extent the threatened harm is based on Defendant's competition for a potential Army contract, the harm cannot be prevented by an injunction consistently with 28 U.S.C. § 1498(a). *See Trojan, Inc. v. Shat-R-Shield, Inc.*, 885 F.2d 854, 856 (Fed. Cir. 1989) ("A supplier or potential supplier of an infringing product *for the government* is 'immune' from injunctive relief barring manufacture, sale, or bidding to supply such a product.") (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 842 F.2d 1275, 1281-82 (Fed. Cir. 1988)).²⁴

Third, Plaintiff has not clearly shown that, apart from a potential Army contract, Defendant's competition will likely and imminently result in a loss of market share. Counsel's characterization at oral argument of the parties as direct competitors appears inexact. Although the record contains no certain information on this point, Plaintiff apparently does not sell rifles. Plaintiff apparently (a) sells its Adams Arms Direct Drive System, a commercial modification kit, *see* Dkt. 5 at 19, to "end

²⁴ At oral argument, Plaintiff's counsel conceded that Defendant cannot be enjoined from bidding on a potential government contract. However, counsel distinguished bidding on a contract from participating in a market survey and suggested that it was not entirely clear that the latter cannot be enjoined. The distinction urged is not easy to reconcile with Plaintiff's characterization of Market Survey Request as virtually although not "technically" a request for proposal. More important, the distinction appears moot because Defendant has already submitted materials in response to the Market Survey Request. At oral argument, Plaintiff also appeared to suggest that, instead of precluding altogether an order enjoining Defendant from bidding on a government contract, Section 1498(a) merely renders any injunction issued under 35 U.S.C. § 283 automatically void to the extent that it purports to enjoin such activity. Apparently, Plaintiff relied on *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 842 F.2d 1275, 1279 (Fed. Cir. 1988), which held that it was unnecessary to modify an injunction at odds with Section 1498(a) because "the injunction is necessarily subject to [Section 1498(a)'s limitation] whether it says so or not." However, the Court finds little encouragement to enter an injunction in the assurance that, to the extent unlawfully broad, the injunction will be automatically void.

users” (presumably, rifle owners), *see id.* at 20, and (a) enters into license agreements with manufacturers who “pay a royalty to Adams Arms in order to be able to manufacture and sell the system,” *id.* By contrast, the SIG516 is a fully assembled rifle, Hirt Decl. ¶ 13, which Defendant sells to consumers through customer-retailers, Morovitz Decl. ¶ 3. Moreover, Defendant evidently does not sell a commercial modification kit for AR-15/M-16 rifles, Hirt Decl. ¶ 13, and Plaintiff presents no evidence (apart from Defendant’s response to the Market Survey Request) that Defendant intends to enter that market. In sum, as Plaintiff presents no evidence that Defendant is likely to enter the relevant market (if not awarded an Army contract), the Court is left to speculate whether Plaintiff is threatened with direct competition and a resulting loss of market share.

Fourth, as to Plaintiff’s fears of lost licensing revenues, Plaintiff has failed to demonstrate that any harm Plaintiff is likely to suffer cannot be compensated by money damages. Plaintiff’s licensing of the right to use the ‘624 Patent to two parties (including a major firearms manufacturer, *see Adams Decl.* ¶ 9) and its evident willingness to enter into a license agreement with Defendant, *see id.* ¶¶ 9-10, suggest both that Plaintiff’s harm is financial in nature and that a basis exists for calculating damages. Moreover, although not entirely implausible, Plaintiff’s contention that Defendant’s sales of the SIG516 will likely encourage others to infringe during the pendency of this lawsuit (or to sue Plaintiff) is unsupported by evidence. Plaintiff has not presented evidence of strained relationships with its existing licensees or evidence that, if Defendant were enjoined from selling the SIG516, other gun manufacturers would seek to license the ‘624 Patent. Besides, Plaintiff suggests no reason why it could not obtain a money judgment as to other infringers, including its existing licensees, if necessary. *See Wang Labs Inc.*, 29 U.S.P.Q.2d at 1502; *White v. Seagate Technology Inc.*, 44 U.S.P.Q.2d 1512, 1516 (N.D. Cal. 1997). In short, the record supports only the

possibility of lost licensing revenues from Defendant, and Plaintiff has not suggested that Defendant, a major firearms manufacturer, will be unable to satisfy a money judgment.

Fifth, Plaintiff does not provide an adequate basis for a finding that consumers are likely to confuse the Adams Arms Direct Drive System with the gas piston system in the SIG516. Notwithstanding their similarity, Plaintiff fails to discuss (a) the presence or absence of source-identifiers in the products as marketed or sold (*e.g.*, a logo on the product, or, in the case of the gas piston system in the SIG516, its incorporation in a Sig Sauer rifle) or as likely to be marketed and (b) the sophistication of likely consumers.

Conclusion

Because Plaintiff has failed to show a reasonable likelihood of success on the merits and irreparable harm absent injunctive relief, the Court need not address the balance of hardships or the public interest. Plaintiff's Motion for a Preliminary Injunction (Dkt. 5) is **DENIED**.

Defendant's request for costs and attorney's fees (Dkt. 20 at 20) is **DENIED**.

At oral argument, Plaintiff's counsel appeared to agree that sealing Defendant's Response to the Market Survey Request was unnecessary because Plaintiff only needed to rely on a portion of the response (afterwards admitted into evidence as Plaintiff's Exhibit 1) that was not confidential. Accordingly, Plaintiff's Unopposed Motion for Leave to File Under Seal Sig Sauer's Response to U.S. Army Market Survey Request (Dkt. 32) is **DENIED** as moot.

DONE AND ORDERED in chambers this 2nd day of August, 2010.



JAMES D. WHITTEMORE
United States District Judge

Copies to:
Counsel of Record