

**United States Court of Appeals
for the Federal Circuit**

**MAG AEROSPACE INDUSTRIES, INC., NKA MAG
AEROSPACE INDUSTRIES, LLC,**
Plaintiff-Appellant

v.

B/E AEROSPACE, INC.,
Defendant-Cross-Appellant

2015-1370, 2015-1426

Appeals from the United States District Court for the
Central District of California in No. 2:13-cv-06089-SJO-
FFM, Judge James S. Otero.

Decided: March 23, 2016

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Before PROST, *Chief Judge*, MAYER and REYNA, *Circuit Judges*.

PROST, *Chief Judge*.

These appeals concern vacuum toilets, such as those that are commonly found on commercial aircrafts. Plaintiff-Appellant MAG Aerospace Industries, LLC (“MAG”) sued B/E Aerospace (“B/E”), alleging infringement of U.S. Patent Nos. 6,536,054 (“’054 patent”), 6,536,055 (“’055 patent”), and 6,353,942 (“’942 patent”) in the United States District Court for the Central District of California. The district court granted summary judgment of noninfringement on all patents, from which MAG timely appeals. The district court also ruled that the doctrine of assignor estoppel barred B/E from arguing that the asserted patents are invalid, and B/E cross-appeals from that ruling. For the reasons stated below, we affirm the district court’s rulings.

BACKGROUND

The patents-in-suit relate to the quick repair of vacuum toilets such as those used in commercial aircraft. They describe technology that facilitates maintenance and service of vacuum toilets and minimizes vehicle downtime through the use of toilet components that are “line replaceable units” (“LRUs”)—single modules that are targeted for easy replacement in the field. The ’054 patent describes a vacuum toilet that includes a “waste receptacle” (i.e., toilet bowl) that is “toollessly inserted into and removed from the installed position independent of the frame,” and thus can be easily and quickly replaced. ’054 patent col. 4 ll. 47–67. The ’055 and ’942 patents claim the use and repair of LRUs within vacuum toilets. Specifically, the ’055 patent requires two LRUs: (1) a waste

receptacle, and (2) a “valve set” that includes “at least two of the discharge valve, rinse fluid valve, and flush control unit.” ’055 patent col. 11 ll. 30–33. The ’942 patent, which is the parent of the ’055 patent, discloses a modular vacuum toilet in which the toilet bowl is supported on top of a structural support frame by an “out-turned flange” around the opening of the toilet bowl. ’942 patent col. 11 ll. 6–7.

MAG sued B/E, alleging direct and indirect infringement of the claims of the asserted patents. On November 21, 2013, B/E counterclaimed on the basis of noninfringement and invalidity. In response to B/E’s invalidity counterclaim, MAG asserted the affirmative defense of assignor estoppel.

On July 24, 2014, the district court issued a *Markman* order construing several terms of the asserted patents. Relevant here, from the ’054 patent, the district court construed the term “toollessly” to mean “without the use of any tools.” J.A. 38. From the ’055 patent, the district court construed the term “line replaceable unit” to mean “a single module targeted for easy replacement in the field.” J.A. 41. Finally, from the ’942 patent, the district court construed “an out-turned flange supported by the top of the support structure” to mean an “outside rim or edge turned away from the sidewall, transferring loads to the top of the support structure.” J.A. 34.

On December 8, 2014, B/E moved for summary judgment of noninfringement, and MAG moved for summary judgment of no invalidity on the basis of assignor estoppel. On January 23, 2015, the district court granted B/E’s motion for summary judgment of noninfringement. The district court also granted MAG’s motion for summary judgment of no invalidity due to assignor estoppel.

Both parties timely appeal. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's grant of summary judgment under the law of the regional circuit, which here is the Ninth Circuit. *Memorylink Corp. v. Motorola Sols., Inc.*, 773 F.3d 1266, 1270 (Fed. Cir. 2014). The Ninth Circuit reviews the grant of summary judgment de novo. *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1148 (9th Cir. 2010). We review a district court's ruling of assignor estoppel for abuse of discretion. *Pandrol USA, LP v. Airboss Ry. Prods., Inc.*, 424 F.3d 1161, 1165 (Fed. Cir. 2005).

MAG argues that the district court erred in granting summary judgment of noninfringement of the asserted patents. B/E argues that the district court erred in ruling that it was barred from asserting invalidity under the doctrine of assignor estoppel. We address each of these arguments in turn.

I. SUMMARY JUDGMENT OF NONINFRINGEMENT

The district court granted B/E's motion for summary judgment of noninfringement of the '054, '055, and '942 patents, holding that (1) the toilet bowls in B/E's toilets cannot be "toollessly" replaced; (2) the "valve set" in B/E's vacuum toilets is not an LRU; and (3) B/E's toilet bowl does not include an "out-turned flange supported by the top of the support structure." For the reasons discussed below, we affirm the district court's rulings.

A. The '054 Patent

MAG argues that the district court erred in ruling on summary judgment that B/E's toilet bowl cannot be replaced "toollessly" as required by the '054 patent. MAG points to B/E's technical documents and the testimony of B/E's former Director of Sales and Marketing, Paul Neary, which it says show that B/E's toilet bowls can be replaced either manually or with the use of a coin. For example, B/E's documents state, "The toilet is designed to

be dis-assembled, assembled, maintained, and serviced *without tools.*” J.A. 3110 (emphasis added). MAG points out that, in fact, twenty-nine of B/E’s technical documents provided to customers make that assertion. Moreover, MAG relies on Mr. Neary’s testimony that he “definitely” informed B/E’s customers that the toilet bowl is designed to be replaced and serviced without tools. J.A. 3083. Thus, MAG contends that there is a genuine issue of material fact as to whether B/E’s toilet bowls meet the “toollessly” replaceable limitation of the ’054 patent.

MAG is incorrect. There is no dispute that B/E’s toilet bowl is attached to its frame with two screw fasteners. And the record evidence showed that to release the screws and remove the bowl, some kind of tool is necessary. In fact, MAG presented no evidence that the screw fasteners could be turned using only one’s hands (e.g., using a fingernail). Indeed, B/E points out that every fact witness who was asked testified that a tool, such as a coin or a screwdriver, is necessary to release the screws. The B/E documents on which MAG relies do not create a genuine issue of material fact on this point. Instead, as the district court properly determined, those promotional and non-technical documents were simply “using a definition of ‘tools’ that excludes coins.” J.A. 16. The un rebutted evidence shows that the reference to “without tools” was a typographical error. Moreover, MAG’s reliance on an out-of-context snippet of Mr. Neary’s testimony is unpersuasive. When Mr. Neary was asked more directly about whether the toilet bowl could be removed manually, he clearly stated that a tool (like a coin) is required.

The question then remains whether a coin is a tool. In its *Markman* order, the district court construed “toollessly” to mean “without the use of any tools.” J.A. 39, 41. The district court made clear that even unconventional tools would be considered tools in the context of the ’054 patent, stating that “the claims and specification never describe the types of tools that could or could not be used

to remove or install the toilet, nor does the patent make any reference to mechanics.” J.A. 39. Importantly, as B/E points out, MAG does not challenge the district court’s claim construction. Although MAG devotes a paragraph under its standard of review section to claim construction, MAG does not clearly advocate for review of the construction of “toollessly.” MAG instead argues that the district court never fully resolved the question of whether a coin qualifies as a tool within the meaning of the ’054 patent and that a genuine issue of material fact remains.

MAG is again incorrect. As MAG has framed the issue, the question is not whether the district court properly determined that “toollessly” means “without the use of any tools,” but instead is whether that construction leaves open the question of whether a coin is a tool. It is clear based on the back and forth at the claim construction hearing that the district court did fully resolve that question. The district court specifically rejected MAG’s proposed construction that “toollessly” means “without the use of conventional mechanics’ tools” and instead stated that the specification clearly indicates that the invention of the patent is that no tools of any kind are necessary. Thus, the district court previously determined that a coin is a tool and, because MAG is not challenging the construction itself, the district court did not err in granting summary judgment of noninfringement.

B. The ’055 Patent

MAG next argues that the district court erred in granting summary judgment of noninfringement of the ’055 patent on the basis that the “valve set” in the accused B/E toilets is not an LRU. MAG points to B/E technical documents that it contends show that B/E designed its “valve set” to address the problem of complicated valve replacement by making the valve set easy to remove from the toilet. MAG also notes that a B/E video further con-

firmly that the valve set consisting of the discharge valve and the flush control unit is designed to be easily removed and replaced. Thus, MAG contends that summary judgment was inappropriate.

The district court previously construed LRU to be “a single module targeted for easy replacement in the field.” J.A. 41. MAG says that the “discharge valve” and the “flush control unit” comprise the valve set in B/E’s toilets. The question is thus whether the discharge valve and the flush control unit together act as a “single module targeted for easy replacement in the field.” J.A. 41. In support of its position, MAG only identifies the B/E video; but, as the district court noted, that video does not clearly identify the flush control unit. In contrast, B/E presented significant evidence that the discharge valve and the flush control unit are removed separately, with the flush control unit being removed before the discharge valve. Indeed, MAG admits that B/E’s maintenance manuals do not provide instructions for removing and replacing the discharge valve and the flush control unit as a single module. MAG also presented no evidence that the two components have ever been removed at the same time by a customer. Thus, the district court properly concluded that there was no genuine material dispute as to whether the discharge valve and the flush control unit operated as a single module targeted for easy replacement. The grant of summary judgment of noninfringement of the ’055 patent was thus correct.

C. The ’942 Patent

Finally, MAG contends that the district court erred in granting summary judgment of noninfringement of the ’942 patent, arguing that the district court incorrectly found that B/E’s toilets do not have the claimed “out-turned flange.” The court previously construed “out-turned flange supported by the top of the support structure” to mean “outside rim or edge turned away from the

sidewall, transferring loads to the top of the support structure.” J.A. 34. Again, MAG does not appear to be challenging this construction, but instead argues that the district court applied a different construction at summary judgment and that, under the proper construction, there is a genuine material dispute as to whether B/E’s toilets infringe.

MAG identified two structures that it claims are out-turned flanges on B/E’s toilet bowl: (1) a first edge located at the base of the vertical columns on the sidewall of B/E’s toilet bowl (called “ribs”); and (2) a second edge located within a groove machined into these vertical columns.

Using finite element analysis, MAG’s expert testified that the identified edges contact and transfer loads to the top of the support structure of the B/E toilet. MAG also relies on other B/E documents, including a computer-aided design (“CAD”) depicting an “edge” at which load was transferred from the bowl to the frame. MAG’s expert thus explained that both the first and second edges enable B/E’s toilet bowl to mate with and transfer loads to the top of the support structure.

As the district court concluded, however, neither edge meets the out-turned flange limitation of the ’942 patent. The “first edge” identified by MAG is merely the bottom of the vertical columns and not a flange. As to the CAD drawing, there is no evidence that it represented the actual product marketed and sold. Instead, B/E provided evidence that its toilet contains a gap of approximately 1/8th of an inch between the vertical column and the frame; thus, the “first edge” does not actually touch the top of the support structure and cannot transfer load to the top of the support structure.

As for the second edge, it is merely a slot within the vertical columns and not an “outside rim or edge turned away from the side wall” as required by the district

court's claim construction. J.A. 34. Thus, the second edge also does not meet the claimed limitation.

MAG also argues that the district court improperly revised its construction at summary judgment by requiring that the flange be a "flat horizontal piece" and that the "top of the support structure" be limited to a horizontally flat structure with uniform elevation. Those arguments are without merit. The district court said nothing about uniform elevation; instead, it merely concluded that the edges identified by MAG did not touch the top of the support structure. Similarly, although the district court referenced the lack of a flat horizontal piece, the court was not requiring that the flange be such a piece; instead, the court properly compared the slot in the ribs (the "second edge") to the construction of "out-turned flange" and found that the limitation was not met. The district court thus did not improperly revise its constructions at summary judgment and, instead, correctly concluded that B/E's toilets did not infringe the '942 patent.

Because the district court properly determined that there were no genuine issues of material fact as to noninfringement of any of the asserted patents, we affirm the district court's grant of summary judgment of noninfringement.

II. ASSIGNOR ESTOPPEL

In addition to granting B/E's motion for summary judgment of noninfringement, the district court also granted MAG's motion for summary judgment of no invalidity. B/E cross-appeals from that ruling, contending that the district court improperly applied assignor estoppel to bar it from asserting that the patents-in-suit are invalid.

Assignor estoppel is an equitable remedy that prohibits an assignor of a patent, or one in privity with an assignor, from attacking the validity of that patent when

he is sued for infringement by the assignee. *Diamond Sci. Co. v. Ambico, Inc.*, 848 F.2d 1220, 1224 (Fed. Cir. 1988). “Privity, like the doctrine of assignor estoppel itself, is determined upon a balance of the equities.” *Shamrock Techs., Inc. v. Med. Sterilization, Inc.*, 903 F.2d 789, 793 (Fed. Cir. 1990). As we previously said in *Shamrock Technologies*,

If an inventor assigns his invention to his employer company A and leaves to join company B, whether company B is in privity and thus bound by the doctrine will depend on the equities dictated by the relationship between the inventor and company B in light of the act of infringement. The closer that relationship, the more the equities will favor applying the doctrine to company B.

Id. Here, one of the inventors of the patents-in-suit, Mark Pondelick, now works for B/E. Mr. Pondelick assigned the patents to his former employer, who in turn assigned them to MAG. The district court concluded that Mr. Pondelick was in privity with B/E and thus that assignor estoppel applies to bar B/E from attacking the validity of the patents. The district court did not clearly err in its determination.

The district court analyzed a number of factors identified in *Shamrock Technologies* to determine whether a finding of privity was appropriate: (1) the assignor’s leadership role at the new employer; (2) the assignor’s ownership stake in the defendant company; (3) whether the defendant company changed course from manufacturing non-infringing goods to infringing activity after the inventor was hired; (4) the assignor’s role in the infringing activities; (5) whether the inventor was hired to start the infringing operations; (6) whether the decision to manufacture the infringing product was made partly by the inventor; (7) whether the defendant company began manufacturing the accused product shortly after hiring

the assignor; and (8) whether the inventor was in charge of the infringing operation. B/E argues that many of these factors support its position that assignor estoppel should not apply. For example, B/E notes that Mr. Pondelick joined B/E after the decision to develop the accused toilet was made and that there was never a plan to conduct infringing activities; in fact, the point of hiring Mr. Pondelick was to avoid infringement. B/E also points out that this case is unlike the others where privity was found because Mr. Pondelick has a negligible financial interest in B/E. Finally, B/E says that the district court should not have disregarded the fact that Mr. Pondelick was making good faith efforts to avoid infringement.

The district court acknowledged all of B/E's arguments but found on balance that assignor estoppel was appropriate. The district court's conclusion is not clearly erroneous. As the district court found, many of the *Shamrock* factors weigh in favor of finding privity. For example, the district court noted that B/E used Mr. Pondelick's knowledge to conduct the activities that are now alleged to be infringing; that he was hired specifically to develop the toilets that are accused of infringement; and that he was the Director of Engineering for B/E during his time as a consultant and later became Vice President and General Manager of B/E EcoSystems, the division that manufactured the accused toilets. Based on the extent of Mr. Pondelick's involvement in the alleged infringing activity and the fact that B/E "availed itself of [Mr. Pondelick's] knowledge and assistance" to conduct the alleged infringement, *Intel Corp. v. U.S. Int'l Trade Comm'n*, 946 F.2d 821, 839 (Fed. Cir. 1991), we cannot say that the district court abused its discretion in finding that assignor estoppel applies. We therefore affirm the district court's ruling that B/E is barred under the doctrine of assignor estoppel from arguing that the patents-in-suit are invalid.

CONCLUSION

For the foregoing reasons, we affirm the district court's rulings.

AFFIRMED

COSTS

Each party shall bear its own costs.