

United States Court of Appeals for the Federal Circuit

01-1346

HUSKY INJECTION MOLDING SYSTEMS LIMITED,

Plaintiff-Appellant,

v.

R&D TOOL & ENGINEERING CO.,

Defendant-Appellee.

Thomas I. Ross, Rockey, Milnamow & Katz, Ltd., of Chicago, Illinois, argued for plaintiff-appellant. With him on the brief were Keith V. Rockey and Randall T. Erickson.

Scott R. Brown, Hovey, Williams, Timmons & Collins, of Kansas City, Missouri, argued for defendant-appellee. With him on the brief were Stephen D. Timmons and Jill D. Singer.

Appealed from: United States District Court for the Western District of Missouri

Senior Judge Scott O. Wright

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Plaintiff-Appellant,

v.

R&D TOOL & ENGINEERING CO.,

Defendant-Appellee.

DECIDED: May 17, 2002

Before MICHEL, LOURIE, and DYK, Circuit Judges.

DYK, Circuit Judge.

Husky Injection Molding Systems Ltd. (“Husky”) appeals from the decision of the United States District Court for the Western District of Missouri, granting the motion of R&D Tool & Engineering Co. (“R&D”) for summary judgment of non-infringement of U.S. Patent No. Re. 33,237 (the “’237 patent”). Husky Injection Molding Sys. Ltd. v. R&D Tool & Eng’g Co., No. 00-0577-CV-W-SOW-ECF (W.D. Mo. Mar. 30, 2001). Because we find that there were no genuine issues of material fact regarding infringement of the ’237 patent and that the district court correctly concluded that R&D’s replacement of the mold and carrier plate of the injection molding system was more akin to repair than reconstruction, we affirm.

BACKGROUND

Husky manufactures and sells injection molding systems (the “X-series systems”) that produce hollow plastic articles known as preforms. These preforms are subsequently reheated and blow molded into hollow plastic containers.

Husky is the assignee of the '237 patent, entitled "Apparatus for Producing Hollow Plastic Articles," which is directed to an injection molding machine that includes a carrier plate containing at least two sets of cavities for cooling the hollow plastic articles. The molds and carrier plates are not separately patented. The parties focus on claim 1 of the '237 patent, which provides:

1. An apparatus for producing hollow plastic articles which comprise [sic]:
an injection molding machine including a first mold portion having at least one cavity therein and a second mold portion having at least one elongate core seating in said cavity in mold-closed position to form a first number of hot hollow plastic articles in an injection molding cycle, and means for reciprocating said mold portions from [sic] said mold-closed position to a mold-open position forming a gap between said mold portions;
a carrier plate having at least two sets of cavities therein for cooling said hollow plastic articles, with the number of cavities corresponding to a multiple of at least two times the number of hollow plastic articles produced in an injection molding cycle;
means for moving the carrier plate into and out of said gap;
means for aligning one set at a time of said carrier plate cavities to juxtapose said aligned set of cavities with said hollow plastic articles formed in an injection molding cycle; and
means for transferring said hollow plastic articles to said juxtaposed cavities.

'237 patent, col. 7, ll. 27-51 (emphasis added).

Generally preforms are made by injecting molten plastic into molds. One half of the mold contains at least one cavity; the other half contains a number of cores corresponding to the number of cavities. Id. at col. 3, l. 65 – col. 4, l. 4. The cores engage with their respective cavities to form a closed mold and produce the shape of the hollow plastic articles. Id. at col. 4, ll. 4-7. To prevent damage to the preforms, each article must be adequately cooled before it is handled. Id. at col. 3, ll. 26-30. Traditionally the preforms were cooled in the molding machine, which was a time-consuming process. Having a lengthy cooling time in the molding machine was the limiting step in the production process of the articles and was at odds with the "high rate of production [that] is important in commercial operations" Id. at col. 1, ll. 20-24. Other injection molding systems have increased the speed of the molding cycle, although there have been corresponding increases in costs or risks of damage to the articles. Id. at col. 1, ll. 66-68, col. 2, ll. 21-23. According to the summary of the invention of the patent, the present invention economically allows a high rate of production while permitting the preforms to cool for an extended period of time inside the cavities of the carrier plate, rather than in the injection molds of the molding machine. Id. at col. 3, ll. 20-26.

When a customer wishes to make a change in the preform design, it generally must buy a substitute mold and corresponding carrier plate in order to operate the Husky injection molding system as it was designed. Customers change the preform design on average after three to five years. When a system owner wants to make a different type of plastic article, it may purchase a replacement mold and carrier plate combination from Husky.

The alleged contributory infringer, R&D, makes molds and carrier plates, which substitute for components of Husky's injection molding system. To make the substitute molds and carrier plates, R&D purchased Husky's X-series system in 1997 without the mold or the carrier plate. At the time of the sale, R&D informed Husky's salesman of its intent to use the Husky system to make substitute molds. Moreover, all sales of Xseries systems were without contractual restriction on the future purchase of molds or carrier plates.

In the summer of 2000, R&D shipped to Grafc0, the owner of a Husky system, a new mold and carrier plate to allow Grafc0 to produce a different preform design. On June 9, 2000, Husky sued R&D for infringement of the '237 patent, urging that R&D had contributed to the infringement of the '237 patent. Husky concedes that the sale of the molds alone did not constitute contributory infringement because the molds were staple items. But Husky urged that R&D's sales to Husky's customers of a mold and carrier plate combination constituted contributory infringement because the substitution of a new carrier plate amounted to reconstruction of Husky's patented invention. R&D did not argue that the products it sold were outside the scope of the claims, but instead defended on the ground that its sales were akin to repair, and alternatively that Husky granted R&D an implied license to make and sell molds and carrier plates.¹

On September 8, 2000, R&D filed a motion for summary judgment of non-infringement, which the district court granted on March 30, 2001. Based on Husky's own admission that "no reconstruction occurs if the customer replaces the combination for repair purposes," the Court focused on whether substitution of a new mold and carrier plate combination for an unspent combination constituted reconstruction. Husky Injection Molding Sys. Ltd. v. R&D Tool & Eng'g Co., No. 00-0577-CV-W-SOW-ECF, slip op. at 6 (W.D. Mo. Mar. 30, 2001). In light of Wilbur-Ellis Co. v. Kuther, 377 U.S. 422 (1964), the district court held that "the use of R&D's retrofit mold/carrier plate assembly to substitute for an unspent original mold/carrier plate assembly does not rise to the level of impermissible reconstruction set out by the Supreme Court in [Aro Manufacturing Co. v. Convertible Top

¹ Husky also claimed that R&D induced infringement under 35 U.S.C. § 271(b). On appeal, Husky primarily focuses its claim on contributory infringement. The repair defense is equally applicable to inducement of infringement and contributory infringement. See Surfco Hawaii v. Fin Control Sys. Pty, Ltd., 264 F.3d 1062, 1066, 60 USPQ2d 1056, 1059 (Fed. Cir. 2001).

Replacement Co., 365 U.S. 336 (1961) (“Aro I”).” Husky, slip op. at 6. The court noted that Wilbur-Ellis supports the holding that changing the shape of components to produce a different preform design is more akin to repair than reconstruction.² Id. at 7. The district court further held that “the use of a substitution mold/carrier plate assembly offered by R&D is within the rights of purchasers of a Husky Xseries due to the Plaintiff’s admission of its awareness of a replacement mold market” Id. at 8. Alternatively, the court concluded that Husky’s customers had an implied license to substitute the mold/carrier plate assembly in order to produce different preform designs because Husky had sold its system without restriction. Id. at 11.

Husky now appeals to this court. We have jurisdiction to hear this appeal pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

I

We review a district court’s grant of summary judgment without deference. Pall Corp. v. PTI Techs., Inc., 259 F.3d 1383, 1389, 59 USPQ2d 1763, 1766-67 (Fed. Cir. 2001). Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to a judgment as a matter of law. Fed. R. Civ. P. 56(c).

II

Here Husky alleges that R&D is a contributory infringer. The law of contributory infringement is well settled. Section 271 of title 35 provides in pertinent part:

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

² The district court did not follow a Southern District of Ohio magistrate’s decision, involving the same issue and concluding that reconstruction rather than repair was involved. Husky Injection Molding Sys., Ltd. v. Electra Form, Inc., No. C-3-98-237, slip op. at 10 (S.D. Ohio Feb. 9, 2000).

35 U.S.C. § 271 (1994) (emphases added).

Thus, a seller of a “material part” of a patented item may be a contributory infringer if he makes a non-staple article that he knows was “especially made or especially adapted for use in an infringement of such patent.” Id.; Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 219 (1980). For R&D to be liable as a contributory infringer, Husky’s customers who purchased the replacement parts from R&D must be liable for direct infringement. 35 U.S.C. §271(c) (1994); Aro I, 365 U.S. at 341. Both an alleged direct infringer and an alleged contributory infringer benefit from the permissible repair exception. See, e.g., Standard Oil Co. v. Nippon Shokubai Kagaku Kogyo Co., 754 F.2d 345, 349, 224 USPQ 863, 866 (Fed. Cir. 1985).

III

The Supreme Court and this court have struggled for years to appropriately distinguish between repair of a patented machine and reconstruction. See Donald S. Chisum, 5 Chisum on Patents § 16.03[3], at 16-159 (1997) (“The line between permissible ‘repair’ and impermissible ‘reconstruction’ is a difficult one to draw and is the subject of numerous cases.”). Based on those decisions, we can identify at least three primary repair and reconstruction situations.

First, there is the situation in which the entire patented item is spent, and the alleged infringer reconstructs it to make it useable again. This situation was first considered by the Supreme Court in Cotton-Tie Co. v. Simmons, 106 U.S. (16 Otto) 89 (1882). Cotton-Tie involved a metallic cotton-bale tie consisting of a band and a buckle. Id. at 91. After the cotton-bale tie was cut, it became scrap iron. Id. The defendants subsequently purchased the scrap iron, riveted the pieces together, and recreated the bands. Id. Although the defendants reused the original buckle, the Court found that the defendants “reconstructed [the band],” id. at 94, and thereby infringed the patent, id. at 95. Moreover, in Morgan Envelope Co. v. Albany Perforated Wrapping Paper Co., 152 U.S. 425 (1894), the Court explained its decision in Cotton-Tie.

Specifically, the Court noted that “the use of the tie was intended to be as complete a destruction of it as would be the explosion of a patented torpedo. In either case, the repair of the band or the refilling of the shell would be a practical reconstruction of the device.” Morgan Envelope, 152 U.S. at 434.

Second, there is the situation in which a spent part is replaced. The Supreme Court first addressed this situation in Wilson v. Simpson, 50 U.S. (9 How.) 109 (1850). Wilson involved the replacement of cutter-knives in a wood-planing machine. In concluding that replacement of the cutter-knives was permissible repair, the Court stated that

repairing partial injuries, whether they occur from accident or wear and tear, is only refitting a machine for use. And it is no more than that, though it shall be a replacement of an essential part of a combination. It is the use of the whole of that which a purchaser buys, when the patentee sells to him a machine; and when he repairs the damages which may be done to it, it is no more than the exercise of that right of care which every one may use to give duration to that which he owns, or has a right to use as a whole.

Id. at 123. In Heyer v. Duplicator Manufacturing Co., the Court addressed whether replacement of gelatine bands with a two-month useful life in a copy machine with a much longer useful life constituted reconstruction. 263 U.S. 100, 101-02 (1923). Following the reasoning set forth in Wilson, the Court held that this replacement also was not reconstruction, but was within the owner’s rights to “maintain [the machine] in use.” Heyer, 263 U.S. at 101-02.

Subsequently, the Supreme Court set forth a definitive test in Aro Manufacturing Co. v. Convertible Top Replacement Co., 365 U.S. 336 (1961) (“Aro I”). Aro I involved a combination patent on a convertible folding top of an automobile. Id. at 337. The fabric of the convertible top had a shorter useful life than the other parts of the patented combination. Id. at 337-38. In reaching the conclusion that replacement of the worn-out fabric of the convertible top was permissible repair, id. at 346, the Supreme Court adopted a bright-line test, id. at 345. Specifically, the Court concluded that replacement of a spent part of a combination patent, which is not separately patented, is not impermissible reconstruction no matter how “essential it may be to the patented combination and no matter how costly or difficult replacement may be.” Id. In adopting this bright-line test, the majority rejected Justice Brennan’s suggestion in his concurrence that a multi-factor fact intensive test was appropriate to distinguish repair from reconstruction. Even if the owner sequentially replaces all of the worn-out parts of a patented combination, this sequential replacement does not constitute reconstruction. See FMC Corp. v. Up-Right, Inc., 21 F.3d 1073, 1077, 30 USPQ2d 1361, 1363-64 (Fed. Cir. 1994); see also Surfco Hawaii v. Fin Control

Sys. Pty. Ltd., 264 F.3d 1062, 1065, 60 USPQ2d 1056, 1058 (Fed. Cir. 2001) (“Mere replacement of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to repair his property.”) (quoting Aro I, 365 U.S. at 346). Moreover, in Sage Products, Inc. v. Devon Industries, Inc., we held that replacement was not limited to worn out articles, but also included articles that were effectively spent. 45 F.3d 1575, 1578, 33 USPQ2d 1765, 1767 (Fed. Cir. 1995).

Third, there is the situation in which a part is not spent but is replaced to enable the machine to perform a different function. This is a situation “kin to repair.” In Wilbur-Ellis, the Supreme Court addressed whether changing the size of cans in fish-canning machines constituted reconstruction when the fish-canning machines were not spent, although they needed cleaning and repair. 377 U.S. at 424. The Court concluded that the “[p]etitioners in adapting the old machine to a related use were doing more than repair in the customary sense; but what they did was kin to repair for it bore on the useful capacity of the old combination” Id. at 425. This form of adaptation was within the scope of the purchased patent rights because the size of the cans was not “part of the invention.” Id. at 424.

This court has followed the holding of Wilbur-Ellis when addressing replacement of unpatented parts of a combination patent. For example, in Surfco we recently addressed a similar situation involving the modification of a surfboard. Surfco manufactured fins that had an additional safety feature and were interchangeable with the patentee’s releasable fins on its surfboard. Surfco, 264 F.3d at 1064, 60 USPQ2d at 1057 (Fed. Cir. 2001). This safety feature created an incentive to replace the patentee’s fins with Surfco’s fins. Once again we reiterated that permissible repair encompasses the situation where parts are replaced. Id. at 1065, 60 USPQ2d at 1058.

IV

Despite the number of cases concerning repair and reconstruction, difficult questions remain. One of these arises from the necessity of determining what constitutes replacement of a part of the device, which is repair or akin to repair, and what constitutes reconstruction of the entire device, which would not be repair or akin to repair. Some few situations suggest an obvious answer. For example, if a patent is obtained on an automobile, the replacement of the spark plugs would constitute permissible repair, but few would argue that the retention of the spark plugs and the replacement of the remainder of the car at a single stroke was permissible activity akin to repair. Thus, there may be some concept of proportionality inherent in the distinction between repair and reconstruction.

Nonetheless, in Aro I, the Supreme Court explicitly rejected a “heart of the invention” standard, noting that no matter how essential an element of the combination is to the patent, “no element, separately viewed, is within the [patent] grant.” Aro I, 365 U.S. at 344. Similarly, in Dawson Chemical Co. v. Rohm & Haas Co., the Court noted that in Aro I it had “eschewed the suggestion that the legal distinction between ‘reconstruction’ and ‘repair’ should be affected by whether the element of the combination that has been replaced is an ‘essential’ or ‘distinguishing’ part of the invention.” 448 U.S. 176, 217 (1980).

However, Aro I itself was clearly dealing with “replaceable” parts, and we have interpreted Aro I as merely defining permissible repair in the context of “replaceable” parts, and as not foreclosing an inquiry into whether a particular part is replaceable. In Sandvik Aktiebolag v. E.J. Co., the defendant offered a drill repair service that retipped the drill when it could no longer be resharpened. 121 F.3d 669, 671, 43 USPQ2d 1620, 1622 (Fed. Cir. 1997), cert. denied, 523 U.S. 1040 (1998). In that case, retipping did not involve “just attach[ing] a new part for a worn part,” but instead required “several steps to replace, configure and integrate the tip onto the shank.” Id. at 673, 43 USPQ2d at 1623. We concluded that retipping the drill was impermissible reconstruction, applying the following test:

There are a number of factors to consider in determining whether a defendant has made a new article, after the device has become spent, including the nature of the actions by the defendant, the nature of the device and how it is designed (namely, whether one of the components of the patented combination has a shorter useful life than the whole), whether a market has developed to manufacture or service the part at issue and objective evidence of the intent of the patentee.

Id. In reaching the conclusion that reconstruction occurred, we noted that “[t]he drill tip was not manufactured to be a replaceable part;” “[i]t was not intended or expected to have a life of temporary duration in comparison to the drill shank;” and “the tip was not attached to the shank in a manner to be easily detachable.” Id. at 674, 43 USPQ2d at 1624. Difficult questions may exist as to the line between Sandvik Aktiebolag and Wilbur-Ellis where readily replaceable parts

are not involved.³ We need not resolve those questions here. At a minimum, repair exists if the part being repaired is a readily replaceable part. See generally Donald S. Chisum, 5 Chisum on Patents § 16.03[3], at 16-163 (1997) (“Many decisions finding ‘repair’ involved soft or temporary parts clearly intended to be replaceable.”).

We conclude that the same safe harbor exists where activity “akin to repair” is involved as when repair is involved. In both cases, there is no infringement if the particular part is readily “replaceable.” For example, in Surfco, the patents in suit were directed to a surfboard having releasable fins. Surfco, 264 F.3d at 1064, 60 USPQ2d at 1057. In describing Aro I, this court noted that “the concept of permissible ‘repair’ is directed primarily to the replacement of broken or worn parts. However, permissible ‘repair’ also includes replacement of parts that are neither broken nor worn.” Surfco, 264 F.3d at 1065, 60 USPQ2d at 1058 (emphasis added). Accordingly, we held that “[t]he patented surf craft [was] not ‘recreated’ by the substitution of a different set of fins, even when the new fins [were] specifically adapted for use in the patented combination.” Id. at 1066, 60 USPQ2d at 1059. Having determined that a part is readily replaceable, it is irrelevant whether the part was an essential element of the invention. We reject Husky’s attempt to revive the heart of the invention standard in different words. See, e.g., Aro I, 365 U.S. at 344.⁴

³ See also Jazz Photo Corp. v. Int’l Trade Comm’n, 264 F.3d 1094, 1105-07, 59 USPQ2d 1907, 1914-16 (Fed. Cir. 2001); Hewlett Packard Co. v. Repeat-O-Type Stencil Mfg. Corp., 123 F.3d 1445, 1452, 43 USPQ2d 1650, 1657 (Fed. Cir. 1997) (holding that modification of devices was akin to permissible repair), cert. denied, 523 U.S. 1022 (1998).

⁴ Husky relies heavily on this court’s decision in Lummus Industries v. D.M. & E. Corp., 862 F.2d 267, 8 USPQ2d 1983 (Fed. Cir. 1988) (per curiam), which, it argues, dictates the conclusion that “the voluntary replacement of a non-spent, material component is reconstruction” Appellant’s Br. at 39. This is not accurate. In Lummus, the district court summarized the respective arguments of the parties concerning the heart of the invention test. 862 F.2d at 271, 8 USPQ2d at 1986. We concluded that there was no dispute regarding whether the summary of the positions was inaccurate. Id. On appeal, the appellants in Lummus claimed that the district court’s own statement of the law in the instruction was reversible error, but no objection had been made in the district court. Id. at 270-71, 8 USPQ2d at 1985-86. We held that on the

Husky also urges that the owner of a patented combination has no right to voluntarily replace an unspent part, unless there is a valid public policy justification for the replacement such as increased safety. This argument is directly inconsistent with both Wilbur-Ellis and Surfco.

In Wilbur-Ellis, the replacement of the 1-pound cans with 5-ounce cans did not enhance safety. In Surfco, we addressed whether a part needed to be spent or broken before there was a right to replace or modify it. Surfco, 264 F.3d at 1066, 60 USPQ2d at 1058-59. We concluded that it was not a reconstruction to substitute different fins, even if the original fins were not in need of repair or replacement. Id., 60 USPQ2d at 1059. Although the fins provided enhanced safety features, our holding in Surfco was not based on this policy justification, but instead on the right of a purchaser to modify a machine. Id., 60 USPQ2d at 1058-59; see also Hewlett-Packard, 123 F.3d at 1452, 43 USPQ2d at 1656 (“ROT’s modification of the caps of HP’s cartridges is more akin to permissible ‘repair’ than to impermissible ‘reconstruction.’”). A purchaser is within its rights to modify a machine by substituting a readily replaceable part whether or not the replacement served some public policy purpose.

V

Here there is no question that the particular parts were readily “replaceable” parts. The design of the injection molding machine allowed replacement of the mold and carrier plates. Husky Injection Molding Sys. Ltd. v. R&D Tool & Eng’g Co., No. 00-0577-CV-W-SOW-ECF, slip op. at 6 (W.D. Mo. Mar. 30, 2001). Typically, after three to five years, a customer purchases a new mold and carrier plate in order to change the preform design. Moreover, Husky sold substitute molds and carrier plates, and provided separate quotations for the injection molding

facts of that case, the district court’s instruction that the purchaser of a patented machine has a “right to repair the machine but does not have the right to reconstruct the machine,” id. at 269, 8 USPQ2d at 1985, was not

system and the mold/carrier plate assembly. Id. at 10. We conclude that the carrier plates were readily replaceable.

In this case, the carrier plate is just one element of the patented combination and not separately patented, and selling replacement parts cannot constitute contributory infringement. We conclude that Husky's customers did not directly infringe the patent by replacing the molds and carrier plates; thus, R&D did not contributorily infringe the '237 patent.

CONCLUSION

For the foregoing reasons, we affirm the district court's grant of summary judgment of non-infringement.⁵

AFFIRMED

COSTS

No costs.

"fundamental legal error," id. at 270, 8 USPQ2d at 1985, or "plainly contrary to law," id. at 272, 8 USPQ2d at 1986-87.

⁵ In light of our disposition that R&D's activities were akin to permissible repair, we do not reach the question of whether the terms of sale created an implied license.