United States Court of Appeals for the Federal Circuit

99-1421

TALBERT FUEL SYSTEMS PATENTS CO.,

Plaintiff-Appellant,

v.

UNOCAL CORPORATION, UNION OIL COMPANY OF CALIFORNIA,

Defandants-Appellees,

And

TOSCO CORPORATION

Defendant-Appellee.

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On remand from the Supreme Court of the United States

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DECIDED: October 28, 2003

Before NEWMAN, MICHEL, and RADER, Circuit Judges.

NEWMAN, Circuit Judge.

This case was remanded by the Supreme Court for further consideration[1] in light of the Court's decision in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 62 USPQ2d 1705 (2002). The vacated decision, Talbert Fuel Systems Patents Co. v. Unocal Corp., 275 F.3d 1371, 1376-78, 61 USPQ2d 1363, 1366-68 (Fed. Cir. 2002), had affirmed the judgment of the United States District Court for the Central District of California,[2] holding that (1) the claims of Talbert's United States Patent No. 5,015,356 (the '356 patent) are limited to a hydrocarbon fuel with a high-end boiling point of 345°F, (2) prosecution history estoppel precludes infringement under the doctrine of equivalents, and (3)

Talbert's '356 patent and Unocal's Patent No. 5,288,393 are not interfering patents. In Talbert this court had relied on the absolute bar established in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (en banc), to deny Talbert access to the doctrine of equivalents. The Supreme Court's vacatur of that decision led to this GVR. We now return to this case in light of this court's recent decision interpreting and applying the Court's Festo decision. See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 344 F.3d 1359 (Fed. Cir. 2003) (en banc).

I

The issue of infringement of Talbert's '356 patent is focused on the limitation of all of the claims to a gasoline boiling point range of 121°F-345°F, as in claim 1:

> 1. A low Reid Vapor Pressure liquid gasoline for use in a standard carbureted internal combustion engine; said gasoline comprising a priming agent and a hydrocarbon mixture having an intermediate carbon range relative to C_4-C_{12} fuel; said intermediate carbon range consisting essentially of C_6-C_{10} hydrocarbons with C_9 and C_{10} paraffinic hydrocarbons being present in the mixture; said gasoline having a boiling point range of 121°F-345°F at 1 atmosphere pressure ....

(Emphasis added.) The accused Unocal fuels were stated at trial to have boiling range endpoints of from 373.8°F to 472.9°F.

Talbert again argues for literal infringement, stating that the 345°F upper limit in the claims was included "only to confirm the gasoline's predominant C_6-C_{10} composition and to establish cut ranges for the fuel's gasifier form." Talbert states that "[t]o interpret that temperature range as a restriction or requirement regarding the presence of all the low- or high-end components contradicts the reality of accepted refinery practice and renders the claim meaningless." Talbert points out that the specification recognizes and teaches that small amounts of hydrocarbons outside the claimed C_6-C_{10} range may remain due to the imprecision of fractionation:

> [The preferred intermediate range C_6-C_{10} gasoline] ... can be made by removing the volatile and heavy components so that the remaining hydrocarbon mixture will boil within a range of about 121°F-345°F at one atmosphere. Such a boiling point range encompasses the boiling point of the lowest boiling C_6 component and the highest

> boiling C_{10} component. Of course, it is possible that a small amount of C_4, C_5, C_{11} and C_{12} may remain after the separation process due to imperfections of gasoline fractionation procedures.

'356 patent, col. 7, lines 39-48. Thus Talbert argues that the 345°F limit is "nothing more than a recognition that the highest boiling C_{10} hydrocarbon (i.e., paraffinic decane) must be present in the claimed composition" and that the claims, correctly construed, do not exclude the presence of higher boilers in relatively small amounts.

In construing the claims, even accepting Talbert's view that gasoline fractionation does not readily achieve or require an exact endpoint, the prosecution history does not permit a claim scope that departs significantly from the stated temperature range. The temperature limit was placed in the claims at the examiner's insistence, to distinguish prior art that included a Hamilton reference that showed hydrocarbon fuels with an endpoint "within the range of about 390°F and about 420°F." Talbert had argued to the examiner that "the temperature range of the boiling points of the hydrocarbons of the gasoline of the presently claimed invention is between 96.8°F and 345°F." To gain allowance, Talbert was required to place the temperature restriction in the claims.

Talbert presented no reasonable explanation of how his designated endpoint of 345°F is correctly construed to include fuels with endpoints of 373°F and higher. We therefore affirm the district court's ruling that the claims are not literally infringed.

II

Infringement by application of the doctrine of equivalents was the basis of the GVR. Talbert requests remand to the district court for retrial in view of the Court's change in the law. Unocal responds that prosecution history estoppel, as established by the Court's Festo decision, bars Talbert's attempt to reach the Unocal fuels, and that remand is inappropriate.

In Festo the Court applied the principles of prosecution history estoppel to claims that had been narrowed by amendment, reaffirming that estoppel "hold[s] the inventor to the representations made

during the application process and to the inferences that may reasonably be drawn from the amendment." Festo, 535 U.S. at 737-38, 62 USPQ2d at 1712. The prosecution history of the '356 patent shows narrowing amendments directed to the hydrocarbon content and boiling range of the fuel. Talbert's claims, as initially filed, contained no temperature range:

> 1. A gasoline fuel comprising hydrocarbons having an intermediate carbon range relative to gasoline which has a carbon range of C_4-C_{12}; said intermediate range being defined as the portion remaining when C_4-C_{12} gasoline has removed therefrom an effective amount of lower weight volatile components to substantially eliminate evaporative loss and explosion potential and an effective amount of higher weight to raise the burn rate of the remaining hydrocarbons to a level comparable to C_4-C_{12} gasoline.

The claims were rejected on references that showed gasoline of various hydrocarbon contents and boiling ranges, including the Hamilton reference which showed an upper boiling limit in the range of 390°F – 420°F. Talbert argued to the examiner that

> there is no disclosure in Hamilton which suggests the removal of lighter and heavier hydrocarbons from a gasoline type fuel to produce a fuel consisting essentially of hydrocarbons in the range of C_5-C_{10} having the boiling range set forth in the claims. In fact, Hamilton teaches away from such a fuel by providing for a fraction having a boiling range up to 390°F (column 1, lines 42-43). This fraction is not the same as, nor equivalent to, that which is the subject of applicant's composition claims.

Talbert then limited the claims to up to C_{10} hydrocarbons, and at the examiner's insistence added a boiling range of 121°F-345°F. The district court concluded that hydrocarbons boiling above 345°F were disclaimed by Talbert in order to obtain the patent, and imposed an estoppel commensurate with this conclusion.

Talbert argues that the temperature limit was placed in the claims to distinguish the Hamilton reference and applied only to gasifier applications, and not to the standard carbureted fuel to which the '356 claims are directed. Talbert argues that "citation of [the gasifier fuels'] prosecution history is irrelevant" because the two types of fuels are very different, stating: "Although the substantial elimination of the higher-boiling C_{11+} hydrocarbons is important for gasoline requiring a gasifier, those

physical properties are not required of standard gasolines, which contain primers to help provide adequate front-end volatility to start engines." Thus Talbert argues that the 345°F limit that was added to the claims does not raise an estoppel to reaching the equivalent Unocal standard carbureted fuels that contain C_{11} hydrocarbons and boil above 345°F.

Talbert requests remand to the district court in order to provide evidence that persons of skill in the gasoline fractionating art would know that a hydrocarbon fuel described by its carbon number, such as C_6 to C_{10}, when distilled will contain some C_{11} hydrocarbons that boil above 345°F. Talbert states that the 345°F limit does not describe the actual composition that is distilled, and would be so recognized. Talbert argues that this evidence would also show that Talbert did not disclaim coverage of gasolines having an endpoint higher than 345°F.

Talbert's patent was prosecuted before Festo was decided by the Supreme Court, and on GVR the patentee may provide evidence not previously relevant. However, in this case the proffered evidence, viewed favorably to Talbert, does not overcome the clarity of the disclaimer of fuels boiling in the range of the Hamilton reference, viz., from 80°F up to the endpoint range of 390°F – 420°F. Nor can Talbert avoid the teaching in the '356 specification that standard carbureted fuel is the same as gasifier fuel "except for the presence of a small amount of priming agent" in the carbureted fuel. Col. 9, lines 19-23. Talbert has not suggested that persons reading the specification would recognize that statement as incorrect or as affecting the boiling point range of the claimed Talbert fuels.

We conclude that the amendment of the Talbert claims to a boiling point upper limit of 345°F, in light of the Hamilton reference showing gasolines with boiling endpoints of 390°F-420°F, is a presumptive surrender of gasolines boiling in the range between Talbert's amended endpoint of 345°F and Hamilton's endpoints. See Festo, 535 U.S. at 740-41, 62 USPQ2d at 1714. In Festo the Court established the grounds of rebuttal of the presumption of surrender arising from a narrowing amendment, the Court stating that "[t]he patentee must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent." Id. Three general criteria of rebuttal were established by the Court:

> The equivalent may have been unforeseeable at the time of the application; the rationale underlying the amendment may bear no more than a tangential relation to the equivalent in question; or there may be some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question.

Id. Talbert, requesting remand, states that the record thus far adduced in the district court does not deal with these aspects of rebuttal, for they were not relevant to the issues as then perceived. However, the prosecution history shows, and precedent confirms, that these rebuttal criteria cannot be met.

When the prior art embraces the alleged equivalent, and a narrowing amendment was made to avoid that equivalent, that subject matter cannot be found to have been unforeseeable at the time of the amendment. Pioneer Magnetics, Inc. v. Micro Linear Corp., 330 F.3d 1352, 1357, 66 USPQ2d 1859, 1862 (Fed. Cir. 2003). The boiling range limits of the Unocal fuels, starting at 373.8°F, are directly within the space between the 345°F limit of Talbert's amended claims, and the 390°F of the Hamilton reference. The amendment was required by the examiner to distinguish the higher boiling fuels, in view of Talbert's explicit disclaimer of such fuels. The issue was extensively discussed in the prosecution record, for the examiner persisted in this rejection. It cannot now be credibly argued that it was unforeseeable that fuels with a boiling range significantly higher than 345°F, approaching the prior art fuels, would be equivalent to the fuels as limited by Talbert's amendments. In view of Talbert's clear disclaimers of such higher-boiling fuels, the now-asserted equivalence cannot be deemed to have been unforeseeable when Talbert's amendments were made.

Turning to the Court's second potential ground of rebuttal, the reason for Talbert's amendment cannot be deemed "tangential" to the Unocal alleged equivalent. The boiling range and carbon content were at issue during prosecution, and were the direct, not tangential, reason for the narrowing amendments to these claim limitations. This court's remand decision in Festo, 344 F.3d at 1369-70, generally prohibits evidence outside the prosecution record in deciding this ground of rebuttal. On the intrinsic evidence, "tangentialness" is not an available ground.

As for the Court's third potential ground of rebuttal, no "other reason" for avoiding estoppel has been proffered. Talbert argues that the claims contain an unnecessarily exact boiling limit; if so, the

court is without power to make such a correction. See Autogiro Company of America v. United States, 384 F.2d 391, 396 (Ct. Cl. 1967) ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth."). The precision or generality with which boiling point ranges or fractionating temperatures are stated is not a matter of the "imprecision of language," the Court's words in Festo, 535 U.S. at 740-41, 62 USPQ2d at 1714, but a measurable property of matter in a well-studied field of engineering. We conclude that the presumption of surrender of the range between Talbert's amended claims and the prior art cannot be rebutted as to the Unocal fuels and that remand is unwarranted.

In addition, the classical principles of the doctrine of equivalents preclude a finding of equivalency, for such finding requires only insubstantial differences between the invention as claimed and the alleged equivalent. See Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 39-40, 41 USPQ2d 1865, 1875 (1997); Eagle Comtronics v. Arrow Communication Labs., Inc., 305 F.3d 1303, 1315, 64 USPQ2d 1481, 1488 (Fed. Cir. 2002) ("An element in the accused product is equivalent to a claim limitation if the differences between the two are 'insubstantial' to one of ordinary skill in the art."). The Unocal fuels do not simply depart by a few degrees from 345°F, but have "true boiling point endpoints ranging from 373.8°F to 472.9°F." Thus, even were Talbert to provide evidence that might overcome the Festo presumption of estoppel, no reasonable trier of fact could find only insubstantial differences between fuels having an endpoint of 345°F and fuels with the endpoints shown for the Unocal fuels.

III

The district court refused to declare an interference, as provided by 35 U.S.C. §291, between any claim of the Talbert patent and Unocal's Patent No. 5,288,393, ruling that there was not identity of subject matter. We have considered Talbert's argument that Unocal simply uses a different method of describing its fuel; however, Talbert has not shown the identity of invention required for declaration of interference. The district court's ruling on this issue is affirmed.

Conclusion

The judgment of the district court is again affirmed.

Each party shall bear its costs.

AFFIRMED

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[1] Talbert Fuel Systems Patents Co. v. Unocal Corp., 537 U.S. 802, 123 S. Ct. 70 (2002). Disposition by GVR (grant, vacate, remand) generally applies to cases whose petition is pending before the Court at the time of decision of a case whose disposition may affect the pending case. See Lawrence v. Chater, 516 U.S. 163, 166-67 (1996). Its purpose is to give the lower court the opportunity for further consideration in light of developments in the law.

[2] Talbert Fuel Systems Patents Co. v. Unocal Corp., No. 98-CV-412 (C.D. Cal. Dec. 15, 1998) (claim construction and dismissal of §291 claim); (April 12, 1999) (summary judgment for Unocal); (May 3, 1999) (summary judgment for Tosco).