United States District Court,
D. Utah, Central Division.

John B. ADRAIN,
Plaintiff.
v.
HYPERTECH, INC,
Defendant.

No. 2:98CV37C

March 6, 2002.

ORDER

CAMPBELL**, J.**

This matter is before the court for additional construction of the asserted claims of U.S. Patent No. 5,523,948 ("the "8 Patent"). John B. Adrain ("Adrain") contends that certain of Hypertech, Inc.'s ("Hypertech") devices infringe claims 1, 5, and 19 of the "8 patent. In previous orders, the court construed certain terms of the asserted claims of both U.S. Patent No. 5,446,665 ("the '665 patent") and the "8 patent. Now, the parties move this court to construe other terms in the asserted claims of the "8 Patent.

The background of this case and the general principles concerning claim construction have been discussed in previous orders and will not be restated except as necessary to explain this decision.

Analysis

The chief contention between the parties is whether the "8 patent incorporates an "in transit" limitation. This debate reduces to a question of what role the written description should play in the construction of the claims of the "8 patent. Adrain argues that Hypertech's proposed constructions commit a "cardinal sin of patent law" by attempting to impermissibly read limitations from the written descriptions into the claims. SciMed Life Sys., Inc., v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1340 (Fed.Circ.2001). Hypertech counters that Adrain is ignoring that "[c]laims must be read in view of the specification, of which they are a part." Markman v. Westview Instruments, 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370 (1996). "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims" SciMed Life Sys., Inc., 242 F.3d at 1341 (finding that the specification limited the scope of claims).

The importance of this question stems from the fact that, according to Hypertech, its accused devices are pieces of shop equipment, which are temporarily connected to a vehicle, typically in a shop or garage setting. Hypertech contends that the claims of the "8 Patent, in contrast to Hypertech's devices, describe an invention that is installed in a vehicle and can change the operation of the vehicle while the vehicle is in

transit. Hypertech advances a number of arguments in support of its contention that the "8 patent contains an "in transit" limitation even though the claims themselves do not contain such an express statement.

Hypertech's first argument is based on the following passage drawn from the "Description of Prior Art" in the "8 patent:

Regardless of how sophisticated or intelligent the onboard computer system program is, it invariably arises that there are additional functions which should or can be performed, or that the vehicle in certain applications will need to be customized to perform differently than originally intended or designed. For example, most engines and systems are originally devised to burn one type of fuel, such as gasoline or diesel. In certain applications, the same engine can be converted through appropriate conversion of the computer system to burn alternative types of fuel such as propane, compressed, natural gas or liquefied natural gas. In fact, the vehicle must be reconfigured in the field, *or possibly even when operating,* to switch between alternative fuels or various alternative fuels either automatically through sensor feedbacks, preprogrammed feedbacks or through manual control.

("8 patent, col. 1, ln. 55-col. 2, ln. 4) (emphasis added).

In the "Brief Summary of the Invention," the invention is described as "an improvement in a vehicle." (Id. at col. 2, ln. 14). The improvement is then said to include "a universal module externally coupled to the bus for arbitrarily reconfiguring programmed control of the electronic control module regardless of the design of the system in which the electronic control mode is employed." (Id. at col. 2, ln. 26-30). The universal module

comprises a plurality of additional operational protocols not originally included within the fixed system design. The universal module comprises a plurality of preprogrammed memories. Each of the memories stores at least one additional program for use in controlling operation of the vehicle in a distinguishable protocol in addition to those provided by the originally provided program and in lieu of control provided by the originally provided program. A control circuit is coupled only to the plurality of preprogrammed memories and selectively communicates one of the plurality of preprogrammed memories to the electronic control module. The operation of the vehicle is changed by the control *while the vehicle is in transit* and thereafter becomes controlled according to the additional program in the selected additional program in the selected preprogrammed memory in lieu of the originally provided program.

(Id. at col. 2, ln. 34-46) (emphasis added).

These two passages are convincing evidence that the invention claimed in the "8 patent requires that selection of the programs includes an "in transit" limitation. *See* id. However, even in light of the "in transit" limitation, Hypertech's proposed constructions often include unnecessary limitations.

The court now turns to the construction of the disputed terms of Claims 1, 5 and 19 of the "8 patent.

I. *Claim 1*

Claim 1 reads (with the undisputed terms underlined):

An improvement in a vehicle having a predetermined combination of operational elements for controlling

vehicular operation according to at least one originally provided program, said predetermined combination of operational elements being defined in a fixed system having a bus with a predetermined operable design for operation of said vehicle, said operational elements of said system being controlled by an electronic control module ["ECM"] according to said originally provided program, said electronic control module being coupled to said bus and exteriorly accessible for a least diagnostic purposes, said improvement compromising:

-> a module externally coupled to said bus *for arbitrarily reconfiguring a programmed control of said electronic control module* in which said electronic control module is employed, *said module for use in selecting* at least one additional operational protocol not originally included within said fixed system design, said module comprising:

-> at least one preprogrammed memory, said preprogrammed memory for storing at least one additional program for use in controlling operation of said vehicle in a distinguishable protocol in addition to those provided by said originally provided program and in lieu of control provided by said originally provided program; and

-> a control coupled only to said preprogrammed memory for selectively communicating said preprogrammed memory to said electronic control module, operation of said vehicle being changed by said control according to said additional program in said selected preprogrammed memory in lie of said originally provided program,

-> whereby said vehicle is caused to operate in a protocol selected from at least one alternative available in said preprogrammed memory.

("8 patent, col. 6, ln. 55-col. 7, ln. 22). The court proceeds to discuss each disputed claim term in turn.

A. "*An improvement in a vehicle having a predetermined combination of operational elements for controlling vehicular operation ..., said predetermined combination of operational elements being defined in a fixed system having a bus....*"

The parties agree that this is a preamble written in a "Jepson" format. A "Jepson claim" follows the following format: "(1) A preamble comprising a general description of all the elements or steps of the claimed combination which are conventional or known, (2) A phrase such as 'wherein the improvement comprises,' and (3) Those elements, steps, and/or relationships which constitute the portion of the claimed combination which the applicant considers as the new or improved portion." 37 C.F.R. s. 1.75(e). The preamble separates the prior art from the inventive portion of the claim and constitutes a limitation for purposes of determining infringement. Id.

Hypertech's proposed construction defines "an improvement in a vehicle" to "refer[ ] to the fact that the patented apparatus is physically incorporated into the unchanging ('fixed') electronic control system of the vehicle to control ... the vehicle while it is moving or stopped, but otherwise in normal operation. Personal computers and other programming equipment designed for use in a shop environment are specifically excluded from the definition of 'an improvement in a vehicle." ' (Dft.'s Claim Construction Statement at 5). The language of the preamble and its meaning is fairly straightforward, and the court declines to adopt Hypertech's invitation to include various limitations in the construction of the preamble.

The plain language of this term means the following: The invention is an improvement to a vehicle. That improvement includes a predetermined combination of operational elements. These operational elements control the vehicle according to at least one originally provided program. These operational elements define a fixed system that includes a bus. That bus includes a predetermined operable design for operation of the vehicle. The operational elements of the fixed system are controlled by an ECM, in accordance with an originally provided program. The ECM is coupled to the bus and is accessible to the outside at least for diagnostic purposes.

B. "***A module externally coupled to said bus***"

The plain language of this term means that the module is physically connected to the bus of the fixed system by a direct connection from outside of the fixed system. Hypertech's proposed construction would add the phrase "and stays connected during the normal operation of the vehicle." (Dft.'s Claim Construction Statement at 10). Such an addition is unnecessary and unsupported by the plain language of the term.

C. "***Said module for use in selecting at least one additional operational protocol not originally included within said fixed system design***"

The parties agree that this phrase means that the externally coupled module is used to select a protocol in addition to the original protocol. As discussed above, the court concludes that a proper construction of the "8 patent must include the limitation that both an original and an additional program are present while the vehicle is in normal operation. This limitation is necessary because the invention requires that the driver have the ability to switch from an original program to an additional program while the vehicle is in normal operation.

D. "***At least one preprogrammed memory, said preprogrammed memory for storing at least one additional program***"

This term means that the externally coupled module includes at least one preprogrammed memory, and the preprogrammed memory also can store at least one additional program, that is, a program in addition to the originally provided program. Hypertech's arguments regarding the inclusion of additional limitations are not supported by either the written description or the prosecution history cited and go beyond the court's conclusion that an "in transit" limitation must be read into the claims.

E. "***Said Preprogrammed Memory ...for use in controlling operation of said vehicle in a distinguishable protocol in addition to those provided by said originally provided program and in lieu of control provided by said originally provided program***"

This term means that the additional program within the preprogrammed memory not only controls the operation of the vehicle but it does so in a different manner than the original program. Again, Hypertech's proposed additional limitation of "while the vehicle is in normal operation" is not supported either by the written description or the prosecution history cited and goes beyond the court's conclusion that an "in transit" limitation must be read into the claims.

F. "***A control coupled only to said preprogrammed memory for selectively communicating said preprogrammed memory to said electronic control module, operation of said vehicle being changed by said control according to said additional program in said selected preprogrammed memory in lieu of said originally provided program***"

This term means that the external module includes a control circuit that is connected only to the preprogrammed memories and to nothing else. The control circuit is used to regulate or guide the operation of the vehicle. The control circuit regulates or guides the operation of the vehicle according to the additional program within the preprogrammed memory in lieu of, that is, instead of, the original program within the fixed system's memory.

In Adrain's proposed construction, the word "only" refers to the phrase "selectively communicating." However, such a construction goes against and distorts the plain language of the claim. The language of the claim recites that the "control is coupled only to said preprogrammed memory...." The word "only" directly follows the word "coupled" and is directly followed by the phrase "preprogrammed memory." Adrain's construction would require that the word "only" follow the phrase "selectively communicating," which it does not do. The word "only", then, clearly refers to where the control is coupled, that is, the preprogrammed memory. It does not refer to "selectively communicating."

This same language is found in the Brief Summary of the Invention section of the "8 patent: "A control circuit is coupled only to the plurality of preprogrammed memories and selectively communicates one of the plurality of preprogrammed memories to the electronic control module." ("8 Patent, col. 2, ln. 39-42). Again, "only" immediately follows "coupled" and obviously refers to where the control circuit is coupled.

G. "*Whereby said vehicle is caused to operate in a protocol selected from at least one alternative available in said preprogrammed memory*"

This term means that after a program in the preprogrammed memory is sent to the vehicle's ECM, the vehicle is caused to operate according to the alternate program now residing in the preprogrammed memory. The vehicle must be responsive to the act of selecting a program while the vehicle is moving or while it is stopped, but otherwise in normal operation.

As discussed above, the inclusion of the "in transit" limitation is required by the language from the Brief Summary of the Invention: "The operation of the vehicle is changed by the control while the vehicle is in transit...." (Id. at col. 2, ln. 43-44).

II. *Claim 5*

Claim 5, which depends from claim 1, reads: "The improvement of claim 1 wherein said control comprises means for erasing said originally provided memory and writing a new program into said originally provided memory from said at least one preprogrammed memory." (Id. at col. 7, ln. 27-29).

Hypertech contends that because the specification and claim 1, from which claim 5 depends, describe and claim more than one control, and claim 5 does not specify which control is being claimed, the claim is invalid under 35 U.S.C. s. 112, para. 2. The antecedent basis for the term "said control" is "a control" in claim 1. The specification discloses two preferred embodiments: "In one embodiment the control comprises a circuit for disabling" and "in another embodiment the control circuit comprises a circuit for erasing." (Id. at col. 2, ln. 57-63). However, these divergent embodiments do not make the "said control" phrase in claim 5 indefinite. Rather, claim 5 clearly limits its scope to the claimed invention "wherein said control comprised means for erasing." (Id. at col. 7, ln. 34-35). This language exactly mirrors one of the two preferred embodiments. Because neither party proposed a construction for claim 5, the court does not construe the claim at this time.

III. Claim 19 reads (with disputed terms underlined):

A method of controlling an automotive computer comprising the steps of:

-> providing control signals to an engine from a first computer, said control signals comprising engine operating parameters;

-> providing at least one originally provided programmed mode for operating said engine from at least one originally provided memory coupled to said first computer;

-> *communicating a superseding signal to a bus coupled to said first computer and said at least one originally provided memory through a diagnostic/emulation port or harness coupled to said bus from an adapter module, said superseding signal to alter control of said engine by said first computer;*

-> *selectively controlling said engine by means of said first computer through at least one additional programmed mode provided by said adapter module,* said additional programmed mode not being originally included in said originally provided memory.

(Id. at col. 10, ln. 16-36). The court will consider each disputed term in turn.

A. "*Communicating a superseding signal ... from an adapter module, said superseding signal to alter control of said engine by said first computer*"

This term means that a signal is sent to alter control of the vehicle's engine. The signal overrides the control signals that are otherwise being sent from "a first computer" to the engine. As a result, control of the engine by the first computer is altered. As discussed above, the court agrees that the claims must be read as encompassing such an "in transit" limitation. Thus, the control of the engine by the first computer can be altered while the vehicle is moving or stopped, but otherwise in normal operation.

B. "*Selectively controlling said engine by means of said first computer through at least one additional programmed module provided by said adapter module*"

This term means that the vehicle's ECM can be selectively changed by the user through the use of at least one of the additional programs in the adapter module. Again, the court declines to add the "in transit" limitation to this term, because it has already read the limitation into claim 19.

Order

It is hereby Ordered this 6th day of March 2002,

D.Utah,2002.
Adrain v. Hypertech, Inc.

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