

United States District Court,
W.D. Texas, San Antonio Division.

CURTISS-WRIGHT FLOW CONTROL CORP,
Plaintiff.

v.

VELAN, INC,
Defendant.

Civil No. SA-04-CA-1157-OG

June 19, 2006.

Mark H. Neblett, Mark M. Supko, Crowell & Moring LLP, Washington, DC, Richard William Espey, Espey & Associates, PC, San Antonio, TX, for Plaintiff.

Joseph Daniel Gray, Willem G. Schuurman, Vinson & Elkins, LLP, Michael J. Smith, Law Office of Michael J. Smith, Austin, TX, for Defendant.

MEMORANDUM AND RECOMMENDATION

JOHN W. PRIMOMO, United States Magistrate Judge.

This Court held a *Markman* hearing to address the parties' remaining arguments related to the construction of certain terms within specific patent claims. Following the *Markman* hearing, the Federal Circuit issued an opinion from an appeal of this Court's previous opinion on a motion for preliminary injunction, in which this Court also made a finding of claim construction. FN1 *See* Curtiss-Wright Flow Control Corp. v. Velan, 438 F.3d 1374 (Fed.Cir.2006). The parties submitted supplemental briefing regarding the impact of the Federal Circuit's opinion on the previous arguments made. Upon consideration of the parties' written briefs, oral arguments, the evidence presented by all parties, and the Federal Circuit's opinion in this case, this Court makes the following findings with regard to the issues presented at the *Markman* hearing.

Factual Background

The undisputed evidence shows Curtis-Wright Flow Control Corp. (Curtis-Wright) holds patents for an invention titled "Coke Drum De-Heading System" (hereinafter referred to as the "Delta Valve"). The Delta Valve is used in a process to extract by-product, known as "coke", during oil refining operations. Specifically, the Delta Valve serves to close and open the head of the coke drum. When the Delta Valve is positioned at the bottom of the coke drum and while in the closed position, the coke drum is able to receive the residual by-product from the refinery process. It is then processed within the coke drum to produce coke. Upon completion of the coke-producing process, the Delta Valve is placed in the open position, wherein the coke falls from the coke drum into a chute, where it is directed to storage or transport vehicles. The undisputed benefit of this invention is the opening, or de-heading, of the coke drum can be performed

without manual activity or intervention, thus eliminating the risk of injury and death previously associated with such process.

Particular to the arguments presented at the *Markman* hearing, Curtis-Wright brings this suit alleging defendant, Velan, Inc. (Velan), has created a device which infringes upon claim numbers 1,14,33,35, and 36 in its patent no. 6,565,714 (hereinafter referred to as patent no. '714) and claim numbers 11 and 12 of its patent no. 6,660,131 (hereinafter referred to as patent no. '131). Velan brings a counterclaim for declaratory judgment that Curtis-Wright's patents are invalid and are not infringed. At the *Markman* hearing, the parties presented argument regarding the disputed meaning of specific terms contained within the challenged claims and submitted an "Amended Joint Claim Construction Statement". (See Docket no. 72). The Court will address the disputed claim terms presented at the *Markman* hearing and contained within the Amended Joint Claim Construction Statement.

Burden of Proof

Analysis of infringement is a two-step process, of which the patent holder bears the burden of proof. First, the court must determine the meaning and scope of the patent claims, known as claim construction. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed.Cir.1995)(en banc), *aff'd* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Courts must construe claims, as a matter of law, before turning to the second step, the application of the interpreted claims to the accused devices. *See Johnston v. IVAC Corp.*, 885 F.2d 1574, 1579-1580 (5th Cir.1989).

With regard to the first step, an applicant for a patent must include within the patent application "one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. s. 112. These patent claims serve two functions: (1) define the invention for the purpose of applying the conditions of patentability; (2) define the invention for the purpose of determining infringement. *See CHISUM, DONALD S., CHISUM ON PATENTS*, s. 8.01, p. 8-4. To derive the meaning of a disputed claim term, courts must first utilize the three parts of the patent application: the language of the claim, the specification, and the prosecution history (file wrapper). *Instituform Tech., Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098, 1105 (Fed.Cir.1996); *see also Autogiro Co. of Amer. v. United States*, 181 Ct.Cl. 55, 384 F.2d 391, 397 (Ct.Cl.1967). Because "[i]t is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude' ", the claim language will define its scope, and the specification and prosecution history provide the necessary context to the claim language. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005)(*quoting* *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed.Cir.2004)); *see also Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed.Cir.1996). Therefore, a Court should begin with the language of the claim terms to determine the scope of the patented invention. *Phillips*, 415 F.3d at 1312; *Markman*, 52 F.3d at 980.

"[T]he words of a claim 'are generally given their ordinary and customary meaning,' " which is the meaning it would have to a person of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312-1313; *Vitronics Corp.*, 90 F.3d at 1583. Thus, "[t]he inventor's words that are used to describe the invention ... must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology." *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.2d 1473, 1477 (Fed.Cir.1998). However, these claim terms must not be viewed and interpreted in a vacuum. *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed.Cir.2005); *Phillips*, 415 F.3d at 1313-1315. Rather, the Court must interpret the claim terms, based upon their customary meaning to a person of skill in the art,

within the context of the words surrounding the claim term, by its usage in other claims, and by any differences among claims. Phillips, 415 F.3d at 1313-1315. "For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Id.* at 1314-1315 (*citing* Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed.Cir.2004)).

Next, the Court must consider the claim within the context of the remainder of the specification, and the prosecution history, if needed and available. Phillips, 415 F.3d at 1315-1316 (*citing* Markman, 52 F.3d at 978). The specification serves as the " 'the best source for understanding a technical term.' " Phillips, 415 F.3d at 1315-1316 (*quoting* *Multiform Desiccants*, 133 F.3d at 1478). Because the patent claims are directed to the invention that is described in the specification, the specification necessarily informs the proper construction of the claims. *Phillips*, 415 F.3d 1316. In some cases, the specification may reveal a special definition to be given a claim term that differs from its customary meaning, or the specification "may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor." *Id.* However, at no time can a limitation be read into a claim based upon a reading of the specification. *Phillips*, 415 F.3d 1316, 1323. Because the patent claims, only, set forth the limits of the patent grant, the specification may only be used to interpret the meaning of a claim or claim terms, and may never be used to place a limitation upon the patent claims or any specific claim term. 35 U.S.C. s. 112; *see* Phillips, 415 F.3d at 1323.

This "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 (*citing* *Comark Commc'ns, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed.Cir.2005)). One specific common mistake that occurs when attempting to make this distinction is confining the claims to the specific embodiments of the patent described in the specification. *See e.g.* , Phillips, 415 F.3d at 1323 (and cases cited therein). Because the purpose of the specification is to teach and enable those of skill in the art to make and use the invention, specifications typically provide an example or embodiment of the invention to accomplish this goal. *See* Phillips, 415 F.3d at 1323. However, the manner in which the patentee uses a term and sets forth an embodiment "usually will make the distinction apparent" whether the patentee intends for the claims and embodiments to be examples of the invention or whether the patentee intends to limit the invention. *Id.*

DISCUSSION

The parties request that this Court interpret specific phrases contained in several claims of the two patents at issue. *See Amended Joint Claim Construction Statement*, Docket no. 72, pp. 3-4. The Court will address each disputed claim term in turn.

I. BIASING ELEMENT

The parties dispute the construction of the term "biasing element" as it appears as follows in Patent '131, Claims 11 and 12:

Independent Claim 11:

A coke drum de-heading valve comprising: ...

a floating dynamic, live loaded seat comprising either of said upper and lower seats, said floating dynamic, live loaded seat is adjustably and continuously biased against said sliding blind using one or more biasing

elements ...;

Dependent Claim 12:

The coke drum de-heading valve of claim 11, wherein biasing element comprises heavy coil springs arrayed at close centers around a perimeter of said seat ring.

See plaintiff's memorandum on claim construction issues, docket no. 51, exh. B, col. 22 ll. 38-63.

Curtiss-Wright contends the term "biasing element" as it appears in these two claims means a "load bearing structure, such as a spring." Curtiss-Wright derives this definition directly from the specification and asserts that the examples given of biasing elements "reinforce the understanding that a biasing element is a general purpose term describing a load bearing structure." *See id.* at pp. 21-22; docket no. 59, pp. 6-7; docket no. 72, p. 4, exh. B, p. 1.

Velan contends the term "biasing element" as it appears in these two claims means "resiliently compressible components such as springs or Belleville washers." *See defendant's brief on claim construction*, docket no. 56, p. 31. Velan asserts it is willing to adopt a compromised version which includes both parties' assertions: "a resiliently compressible load bearing structure, such as a spring." *Id.* Velan contends Curtiss-Wright's proposed construction ignores an important property of the biasing elements, specifically that it needs resiliency to provide constant biasing force upon the seat to maintain a seal between the seat and the sliding blind. *See Velan supplemental brief on claim construction*, docket no. 89, pp. 10-11.

The Court finds the term "biasing element" does not have an ordinary and customary meaning from which its construction may be derived, and therefore, such must be derived from the term's use within the context of the subject claims, informed by the specification. *See Phillips*, 415 F.3d at 1316, 1323. In the specification, the term "biasing element" appears several times and is always used in conjunction with the phrase "load bearing member, such as a spring or Belleville washer." The specification explains that during the initial stages of coking, the surface of the sliding blind can distort due to heat distribution. Docket no. 51, exh. B, col. 10 l. 65-col. 11 l. 8; col. 16 ll. 36-46. This distortion could break the compression seal between the valve seat and the sliding blind causing detrimental decrease in pressure within the coke drum and the potentially dangerous spillage of coke. *Id.* To compensate for this distortion, at least one seat of the valve system is live-loaded, which allows it to "conform to the camber of the sliding blind" and provides "point to point fine tuning of the system, and particularly the blind as it is sealed between upper and lower seats". *Id.* at col. 11 ll. 4-5; col. 12 ll. 12-15; (references to figure drawings omitted). To achieve this fine tuning, "a large force must be applied to blind from upper and lower seats, such that the system is substantially sealed and the pressure within the system maintained." Docket no. 51, exh. B, col. 13 ll. 63-66 (references to figure drawings omitted). "By increasing the applied load of the dynamic, live-loaded seat on blind the bowing is substantially eliminated, thus returning blind to a more natural shape." *Id.* at col. 14 ll. 14-17 (references to figure drawings omitted). The continuous fluctuation and adjustment of the live loaded seat against the blind creates a "floating seat" concept, meaning the live loaded seat moves responsively to changes in the blind. *Id.* at col. 16 ll. 51-59; col. 18 ll. 45-62; col. 19 ll. 67-col. 20 l. 19.

The specification further explains the purpose of the biasing elements is to create the force, or biasing force, applied by the seat to the blind. *Id.* at col. 18 ll. 45-62; col. 19 ll. 67-col. 20 l. 19. For the live loaded seat to maintain the "floating concept", the biasing force applied by the biasing element to the live loaded seat must change in direct correlation to the changes to the sliding blind. Thus, the biasing elements which create the

biasing force must be resilient, or capable of constant, responsive increase or decrease in the force applied.

While resiliency and responsive action are imperative properties of the biasing elements to achieve its stated purpose of applying constant force to the valve seat, these properties, as described in the specification, do not necessarily require that a biasing element be compressible, or that it be in the form of a spring. While a compressible quality is the most apparent and logical form of a biasing element and is a quality of the examples given of biasing elements, these requisites of resiliency and responsive action do not mandate that the biasing element be compressible. These requisites only mandate that the biasing element have the capability of creating resilient force to be applied to and released from the sliding blind in direct response to changes or distortions in the sliding blind.

While these claims at issue and the specification refer to the biasing elements as "load bearing" members, from the term's use and context, this Court determines construction of the term "biasing element" to mean simply a "load bearing structure, such as a spring", as proposed by Curtiss Wright, is ambiguous and open to many different interpretations. These other potential interpretations are not indicative of the biasing elements' use and purpose in the patented invention. The foremost possible interpretation of the term "load bearing structure" implies a static structure that supports the weight or load of other structures. "Load bearing" can mean the structure takes on and supports and distributes weight. This is not how the biasing element is utilized in the invention or described in the specification. In the context of this invention, Curtiss-Wright intends the term "load bearing" to mean the elements *apply* or *create* a force, or load, to the live load seat assembly, which is thereby transferred to the sliding blind. The biasing element is not just a static, weight-supporting structure, but, as discussed previously, is one that must be resilient, or able to change the force applied to the live loaded seat in direct correlation to the fluctuations and deflections in the sliding blind created by the coke manufacturing process. Further, the invention would not work if the term "biasing element" left open the possibility that it were a simple static weight supporting structure. Rather, the invention can only work if the biasing element creates the force to be placed upon the sliding blind by the live-loaded seat and then adjusts the force as needed in response to changes in the physical distortion of the blind. Thus, use of the phrase "load bearing structure" is not adequate to define the disputed claim term "biasing element".

Therefore, the Court finds Curtiss-Wright's proposed construction too vague and ambiguous and void of the necessary characteristics of the biasing element utilized in this invention and described in the patent specification. The Court also finds Velan's proposed construction that includes a requirement that the biasing element be compressible is too limiting. Thus, the Court concludes the following to be the proper construction of the term "biasing element" as it appears in patent '131, claims 11 and 12: a resilient structure, such as a spring, capable of imposing and releasing a force on the dynamic, live loaded seat. However, the Court notes this construction does not limit the biasing element to any particular form or structure.

II. LIVE LOADED SEAT ASSEMBLY

The parties dispute the construction of the following phrase as it appears in patent '714, claims 1 and 36:

'714, Claim 1:

A coke drum de-heading system comprising: ... a live loaded seat assembly having at least one dynamic, live loaded seat and a corresponding live loaded seat adjustment mechanism to control the exertable force of

said dynamic, live-loaded seat;

'714, Claim 36:

A coke drum de-heading valve attachable to a coke drum, said coke drum de-heading valve comprising: ... a live loaded seat assembly comprising a dynamic, live-loaded seat and a live seat adjustment mechanism for controlling the amount of exertable force of said dynamic, live-loaded seat; FN2

Docket no. 51, exh. A, col. 16 ll. 37-44; col. 20 ll. 45-46, 50-53.

The parties also dispute the construction of the following related phrase as it appears in patent '131, claim 11:

'131, Claim 11:

A coke drum de-heading valve comprising: ... at least one live seat adjustment mechanism coupled to said main body for controlling the adjustability of said floating dynamic, live-loaded seat,....

Docket no. 51, exh. B, col. 22 ll. 38, 56-58.

The parties agree that construction of the phrase contained in patent '131, claim 11 relates to and is determined by the Court's construction of the phrase "live seat adjustment mechanism" as it appears in patent '714, claims 1 and 36. Velan brief, Docket no. 56, p. 27. Therefore, the Court will construe the '714 patent claims first, and then construe claim 11 of the '131 patent.

A. Patent '714, Claims 1 and 36

The parties agree the subject phrase, as it appears in claims 1 and 36, connotes the live loaded seat assembly is comprised of a combination of at least two general elements: a dynamic, live-loaded seat and a live-loaded seat adjustment mechanism. *See* docket no. 51, p. 27; docket no. 56, p. 12; docket no. 56, p. 15. However, the parties dispute the construction to be given each of these elements. Therefore, the Court will address each in turn.

1. Dynamic, Live-Loaded Seat

Curtiss-Wright contends the term "dynamic, live loaded seat" means "a movable valve seat acted upon by biasing elements such as coil springs that provide a continuous biasing force." *See* docket no. 72, exh. B, p. 1. Velan contends the term means "a movable valve seat having biasing elements such as coil springs or Belleville washers that provide a continuous biasing force." Docket no. 72, exh. B, p. 1. While very similar, the Court finds determination whether the movable valve seat "has" biasing elements or whether it is "acted upon" by biasing elements has a significant impact on the scope of the subject claim.

In the specification, the term "live loaded seat" is primarily used in conjunction with its counterpart, a static seat. *See* docket no. 51, exh. A, fig. 8, col. 4, ll. 32-42; col. 13, ll. 39-col. 14, l.18. The static seat is mounted to the main body and is located on the opposite side of the sliding gate as the live loaded seat. The static seat does not move and always remains in static contact with the sliding gate. Conversely, to maintain a seal with the sliding blind, the live loaded seat is capable of movement up or down responsive to changes in the sliding blind. *Id.*; *see also* col. 14, l.65-col. 15, l.3. The biasing elements facilitate or create the movement in

the live loaded seat. The amount of force applied by the biasing elements is in direct correlation to changes in the sliding blind that occur during the coking process. As the sliding blind changes during the coking process, its contact with the live loaded seat changes, thus changing the force placed upon the seat by the biasing elements. This fluctuation in force applied through the live loaded seat onto the sliding blind maintains the seal between these two components as these changes occur in the blind. Thus, the term "dynamic, live loaded" refers to the ability of the seat to move up and down in response to changes in the environment, as opposed to being static, or immovable.

Based upon this reading of the specification, the Court finds the live loaded seat does not "have" or contain biasing elements, as proposed by Velan, but is "acted upon" by the biasing elements, as proposed by Curtiss-Wright. The biasing elements place force upon the live loaded seat, which then bears down upon the sliding blind, thus maintaining the seal. Neither the specification nor the claim at issue describe a live loaded seat that contains biasing elements as part of its internal structure. The live loaded seat is just a seat that is capable of movement. The biasing elements prompt this movement, but are not necessarily contained within the structure of the seat itself, as Velan's interpretation implies.

Further, the figure drawings and descriptions of these drawings depict biasing elements act upon the live loaded seat. As described in the specification, Figure 9 illustrates the preferred embodiment of the live-loaded seat assembly. *See* docket no. 51, exh. A, col. 14, ll. 19-20. In this illustration, the live loaded seat assembly comprises a live seat adjustment mechanism, a force transfer module, and a dynamic, live-loaded seat. *Id.* at ll. 20-23. "Each of these elements works in conjunction with one another to apply and transfer force to blind ..." Docket no. 51, exh. A, col. 14, ll. 23-25. The specification goes on to explain the live seat adjustment mechanism is comprised of a series of biasing elements that act in conjunction with its other elements to exert "a resulting force on the dynamic live-loaded seat, ... which in turn causes a resulting force to be exerted upon blind at contact." *Id.* at ll. 40-43; col. 15, ll. 7-13. These drawings and their descriptions illustrate the biasing elements are not part of the structure of the dynamic live loaded seat, but instead, act upon it.

Thus, the Court agrees with Curtiss-Wright's proposed construction of the term "dynamic, live-loaded seat" to mean "a movable valve seat acted upon by biasing elements, such as coil springs, that provide a continuous biasing force".FN3

2. Live Loaded Seat Adjustment Mechanism

In Claims 1 and 36 of the '714 patent the term "live loaded seat adjustment mechanism" appears in substantially the same form as follows: "A coke drum de-heading system comprising: ... a live loaded seat assembly having at least one dynamic, live loaded seat and a corresponding live loaded seat adjustment mechanism to control the exertable force of said dynamic, live-loaded seat;". In Claim 11 of the '311 patent the term appears as follows: "A coke drum de-heading valve comprising: ... at least one live seat adjustment mechanism coupled to said main body for controlling the adjustability of said floating dynamic, live-loaded seat,...." *See* docket no. 51, exh. A., col. 16 ll. 37-44; col. 20 ll. 45-46, 50-53.

Following the Federal Circuit's opinion, Curtiss-Wright contends the term "live loaded seat adjustment mechanism" means "an arrangement of connected parts governing the magnitude of that biasing force during use of the de-heading valve." Docket no. 72, exh. A, p. 1. Velan contends the specified phrase means the

bias force may be adjusted while the biased, movable seat is in place in the valve body by using a

mechanical apparatus or assembly, coupled to the main valve body that can be adjusted externally to adjust or change the bias force being applied to the biased, movable valve seat through a force transfer module while the biased, movable valve seat is in its operative position within the valve body.

See id.; *see also* docket no. 56, p. 17. Velan's proposed construction includes several limitations on the live-loaded seat adjustment mechanism that Curtiss-Wright's proposed construction does not: (1) the adjustment mechanism is coupled to the main valve body; (2) the bias force on the live loaded seat must be adjusted while the live loaded seat is in place in its operative position in the valve body; (3) the adjustment must be made "externally"; (4) the adjustment must be made through a force transfer module. *See id.*

To begin, the Federal Circuit issued an opinion on its construction of the term "adjustable", as it appears in Claims 14 and 33 of patent '714, to mean the force exerted by the biasing elements upon the live loaded seat is capable of being changed, and this change can occur while the de-heading system is in use. *See Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1380. As proposed by Curtiss-Wright, this Court finds the Federal Circuit's construction of the term "adjustable" informs the construction of this subject term "live-loaded seat adjustment mechanism" because this subject term describes the mechanism that performs any adjustment to the dynamic live loaded seat. However, this Court finds Velan's proposed construction of the term "live-loaded seat adjustment mechanism" contains limitations necessitated by the Federal Circuit opinion, while it also reads limitations into this component not intended by the Federal Circuit nor allowed under a proper review of the ordinary and customary meaning of the terms, their context in the subject claims, and the context of the specification.

a. Adjustment Mechanism is Coupled to the Main Valve Body

The Court finds Curtiss-Wright does not actually dispute any construction which implies or states any live loaded seat adjustment mechanism shall be coupled to the main valve body. In Curtiss-Wright's proposed construction of the related Claim 11 of patent '131, which it incorporates in its proposed construction of claims 1 and 36, patent '714, it states "the mechanism comprises an assembly or arrangement of parts coupled to the main body of the valve." *See* docket no. 59, pp. 10, 12. Curtiss-Wright also includes in the Amended Joint Claim Construction Statement a proposed construction of "live seat adjustment mechanism", as it appears in claim 11, patent '131, to be that it is "coupled to the main body of the valve. Docket no. 72, exh. B, p. 1. Curtiss-Wright admits construction of claims 1 and 36 of patent '714 should be consistent with construction of claim 11 of patent '131. Thus, the Court concludes the term "live-loaded seat adjustment mechanism", as it appears in Claims 1 and 36, shall be construed to imply any adjustment mechanism shall be "coupled to the main valve body."

b. Adjustment Made While the Valve Seat is in Use or its Operative Position in the Valve Body

The parties' primary dispute regarding construction of the term "live-loaded seat adjustment mechanism" as it appears in Claims 1 and 36 pertains to whether any adjustment to the live loaded seat must be made while it is in use or in its operative position in the valve body. This argument was also central to the Federal Circuit's recent determination of the meaning of the term "adjustable" as it appears in patent '714, claims 14 and 33.

Velan contends the subject terms must be read within the context of the entire claim phrase. When placed within the implied meaning of the entire claim phrase, Velan contends the live loaded seat, by its association with a live-loaded seat adjustment mechanism, must be capable of being adjusted while the live loaded seat is in its operative position. Docket no. 56, pp. 18-19; docket no. 72, exh. A, p. 1; exh. B, p. 1; docket no. 89,

pp. 1-3. Velan further contends that based on the description of the invention contained in the Abstract and the specification, the adjustment mechanism may only change the force placed on the dynamic, live loaded seat when the seat is in its operative position and while both are coupled to the main valve body. *Id.*

Curtiss-Wright contends Velan's proposed construction attempts to limit the patent to the description of the patent's preferred embodiment outlined in the specification. Docket no. 51, pp. 22-26; docket no. 59, pp. 10-13; docket no. 90, pp. 4-5. Curtiss-Wright contends a fair reading of the subject claims and the Federal Circuit's opinion does not place this limitation on the invention. *Id.* While the preferred embodiment does anticipate the adjustment mechanism is capable of making adjustments to the bias force while the valve seat is in its operative position, Curtiss-Wright contends the subject claims do not limit the invention in this way. *Id.*

The Federal Circuit opinion informs this Court's determination of the parties' present dispute whether any adjustment to the biasing force must be made while the valve seat is in its operative position. In its opinion, the Federal Circuit held the '714 patent specification consistently and without exception describes adjustment that occurs during operation of the de-header system. Curtiss-Wright Flow Control Corp., 438 F.3d at 1379. Therefore, in light of the specification, the Federal Circuit held the term "adjustable" means the force exerted by the dynamic live loaded seat can be changed while the de-header valve system is in use. *Id.* at 1379-1380. However, the Federal Circuit qualified this finding, stating this limitation of "in-use adjustability does not necessarily mean the same thing as the presence of an adjustment mechanism." *Id.* at 1381. Accordingly, as guided by the Federal Circuit, this Court finds the subject patents claim a device that may, but does not necessarily, possess an adjustment mechanism and that may change the force applied by the live-loaded seat upon the sliding blind while the valve seat is in use.

Velan further contends the Federal Circuit's determination went beyond its own proposed limitation that the adjustment mechanism change the force while the live loaded seat is in its operative position by stating the term "adjustable" must mean the force may be changed while the de-header system is in use. Docket no. 89, pp. 1-3. Velan contends the "in-use" requirement is much more restrictive than its proposed "operative position" requirement. *Id.* This Court does not agree with such a construction. In the context of the opinion, the Federal Circuit's determination that the adjustment mechanism must be capable of changing the exertable force upon the sliding blind while the de-heading valve system is in use is synonymous with Velan's proposed construction that any adjustment mechanism must be capable of making such adjustment while the live loaded seat is in its operative position. The Federal Circuit opinion does not establish or show any intent of imposing further limitation upon the claimed device than that proposed by Velan. The difference in language used is simply semantics and is immaterial to the Federal Circuit's explained scope of the subject claim term.

c. Adjustment Made Externally

Curtiss-Wright contends the subject Claims 1 and 36 of the '714 patent and Claim 11 of the '131 patent claim only a de-header valve that contains at least one live seat adjustment mechanism, without providing any further limitation as to where any adjustment must be made. Docket no. 51, pp. 22-26; docket no. 59, pp. 8-10; docket no. 90, pp. 3-5. Curtiss-Wright asserts other independent claims provide specific examples of live seat adjustment mechanisms, and, when read in conjunction with the subject claims, these other independent claims demonstrate the subject claims do not limit the claims to any specific adjustment mechanism that is external to the main valve body. *Id.*

Velan proposes the construction of the term "live seat adjustment mechanism" in the subject claims limits the claimed device to an adjustment mechanism that is external to the valve body. Docket no. 56, pp. 17-22; docket no. 89, pp. 5-7. Velan contends the claim language implies that any adjustment mechanism must be external to the main valve body and this is the only interpretation that makes logical sense. *Id.*

Claims 1 and 36 are independent claims which describe the individual components of the "coke drum de-heading system". As claimed, one component of this system is the live loaded seat assembly which has "at least one dynamic, live loaded seat and a corresponding live loaded seat adjustment mechanism". Docket no. 51, exh. A, col. 16, ll. 41-43. As claimed in the related Claim 11 of the '131 patent, the live seat adjustment mechanism is "coupled to said main body for controlling the adjustability of said floating dynamic, live loaded seat". *Id.* at col. 22, ll. 56-58. As discussed previously, this Court concludes the term "live seat adjustment mechanism", as it appears in Claims 1 and 36, shall be construed to imply the adjustment mechanism shall be "coupled to the main valve body" as stated in Claim 11 of the '131 patent. This Court finds this conclusion that any adjustment mechanism described in these claims shall be coupled to the main valve body necessarily compels construction that any adjustment mechanism must be external to the main valve body, or outside its internal structure.

This finding is consistent with the Federal Circuit's opinion with regard to construction of the term "adjustable", in which the Federal Circuit held the '714 patent Specification "consistently, and without exception, describes adjustment that occurs during operation of the de-header system." *See Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1379. The Federal Circuit held that any "construction of 'adjustable,' which includes a structure that requires dismantling of the valve to perform the adjustment, finds no support in the overall context of the '714 patent specification ." *Id.* To be consistent with this holding, this Court must construe the subject claims to claim only that any adjustment mechanism must be external to the main valve body, or outside of the main valve body.

Further, this finding does not restrict these claims to the preferred embodiment illustrated in the Specification. Claims 1 and 36 and Claim 11, themselves, specify and claim a device that includes an adjustment mechanism that is coupled to the main valve body. Therefore, these claims, themselves, describe a device that possesses an adjustment mechanism that is external to the main valve body. Therefore, this Court is not limiting the invention by the preferred embodiment described in the Specification, but is only construing the meaning of the language contained in the claims at issue.

Accordingly, this Court concludes the term "live seat adjustment mechanism" as found in Claims 1 and 36 of Patent '714 and Claim 11 of Patent '131, only, implies that any adjustment mechanism must be external to the main valve body.

d. Force Transfer Module

The parties' dispute regarding whether the subject claims require the existence of a force transfer module is incongruous. Curtiss-Wright contends the phrase "live seat adjustment mechanism" in the subject claims should not be construed to require the presence of a force transfer module. Curtiss-Wright contends that while the specification names a force transfer module to be part of the preferred embodiment of the de-heading valve system, a force transfer module is not a required component of any adjustment mechanism. Velan proposes construction of the term "live seat *assembly* " in the subject claims, rather than the term "live seat *adjustment mechanism*," should require the live seat be adjusted using a force transfer module. Velan contends this is the only logical construction because any change in the load placed upon the live

loaded seat may only be transferred from an adjustment mechanism to the live loaded seat through some transfer mechanism. Consequently, Velan contends a force transfer module must be a required component of the live seat assembly claimed in the claims at issue.

The Court finds both parties' incongruous arguments to be correct. The language of Claims 1 and 36 in patent '714 claims a device in which the de-header valve system comprises, in addition to 2 other components, a live seat assembly. The live seat assembly is comprised of 2 elements: a dynamic, live loaded seat and a corresponding live-loaded seat adjustment mechanism. Docket no. 51, exh. A, col. 16, ll. 36-46; col. 20, ll. 46-53. A look at the context of the remaining claims and the specification reveals that both parties' interpretations are correct. Claim 9, a claim dependant upon Claim 1, states the live loaded seat assembly also comprises a force transfer module to transfer a force from any adjustment mechanism to the dynamic, live loaded seat. *Id.* at col. 17, ll. 8-12. Claim 10 is dependant upon Claim 9, and lists the separate components of a live loaded seat adjustment mechanism. *Id.* at ll. 13-30. Claim 10 does not list a force transfer module as a component of a live loaded seat adjustment mechanism. Instead, Claim 10 states a component of the live loaded seat adjustment mechanism is the force applicator which "applies a force to said force transfer module." *Id.* at col. 17, ll. 15, 27-30.

This Court cannot read into independent Claim 1 any limitations appearing in any claims dependent upon it. To the contrary, the presence of a limitation in a dependent claim "gives rise to a presumption that the limitation in question is not present in the independent claim." *See Phillips*, 415 F.3d at 1314-1315 (*citing* *Liebel-Flarsheim Co.*, 358 F.3d at 910). Thus, a review of the context of the claims in which this phrase appears supports both parties' arguments: the force transfer module is a component of the live loaded seat assembly, but is not a component of any live loaded seat adjustment mechanism.

Next, the Court must consider the claim within the context of the remainder of the specification. *See Phillips*, 415 F.3d at 1312-1313. The abstract of the specification describes the live loaded seat assembly to be comprised of

a dynamic, live loaded seat, a live seat adjustment mechanism coupled to the main body and designed to control and adjust the force and resulting seat load of the dynamic, live loaded seat, and a force transfer module in juxtaposition to the dynamic, live loaded seat for transferring the force from the live loaded seat adjustment mechanism to the dynamic, live loaded seat;

See docket no. 51, exh. A, p. 1. Later, within the specification of the patent application, the exact language is used to describe the preferred embodiment of the invention. This language includes the force transfer module as a separate and distinct component of the live loaded seat assembly, rather than as a part of the adjustment mechanism. *Id.* at col. 4, ll. 34-40. In its descriptions of the drawings, the specification reinforces this interpretation, stating the live loaded seat assembly is comprised of (1) a dynamic, live loaded seat; (2) a live loaded seat adjustment mechanism "used to adjust and control the load exerted by the dynamic live loaded seat upon" the sliding blind; and (3) a force transfer module "whose primary purpose is to transfer the load exerted by live seat adjustment mechanism to the dynamic, live loaded seat". *Id.* at col. 13, ll. 43-56; col. 14, ll. 20-26.

Thus, this Court concludes the subject claims 1 and 36 claim a device which is comprised of a live seat assembly. The live seat assembly is comprised of a dynamic, live loaded seat, a live loaded adjustment mechanism, and a force transfer module. The force transfer module described in Claims 1 and 36 is a component of the live seat assembly separate and distinct from the live loaded seat adjustment mechanism.

3. Final Construction

Based upon the discussed findings, the Court concludes the phrase, "a live loaded seat assembly having at least one dynamic, live loaded seat and a corresponding live loaded seat adjustment mechanism to control the exertable force of said dynamic, live loaded seat", as it appears in similar form in claims 1 and 36, means the combination of: (1) a movable valve seat acted upon by biasing elements such as coil springs that provide a continuous biasing force, and (2) a mechanism consisting of an arrangement of connected parts coupled to the main valve body that externally adjusts and controls the magnitude of the biasing force exerted by the live loaded seat against the blind while the de-heading valve system is in use, or in its operative position.

B. Patent '131, Claim 11

The parties agree that construction of the phrase, "at least one live seat adjustment mechanism coupled to said main body for controlling the adjustability of said floating dynamic, live loaded seat," as it appears in Claim 11 of the '131 patent is controlled by the Court's construction of the previously discussed phrases as they appear in Claims 1 and 36 of the '714 patent. Accordingly, this Court finds this subject claim to mean, "a mechanism consisting of an arrangement of connected parts coupled to the main valve body that externally adjusts and controls the magnitude of the biasing force exerted by the live loaded seat against the blind while the de-heading valve system is in use, or in its operative position."

III. Adjustably and Continuously Biased

The parties dispute the construction of the phrase "adjustably and continuously biased" as it appears as follows in patent '131, claim 11:

Claim 11:

A coke drum de-heading valve comprising: ... a floating dynamic, live loaded seat comprising either of said upper and lower seats, said floating dynamic, live loaded seat is adjustably and continuously biased against said sliding blind using one or more biasing elements ...

Docket no. 51, exh. B, ll. 38, 51-55.

Curtiss-Wright contends the phrase "adjustably and continuously biased" means,

one or more load bearing structures, such as a spring, serve to continuously press the live loaded seat against the blind regardless of any movement of the blind. The magnitude of the force exerted by the live loaded seat can be changed.

Docket no. 72, exh. B, p. 1.

Velan contends the phrase "adjustably and continuously biased" means,

the floating dynamic live loaded seat is continuously biased against the sliding blind using one or more resiliently compressible load bearing structures, such as a spring, and is adjustably biased against the sliding blind using at least one live seat adjustment mechanism.

Docket no. 72, exh. B, p. 1.; *see also* docket no. 89, pp. 27-29. Velan further contends the use of the conjunctive "and" in the subject phrase "requires that the seat be adjustable *while* it is continuously biased and, *vice versa*, continuously biased while it is adjustable". Docket no. 89, pp. 27-29. The proposed constructions are very similar; however, the Court finds Velan's proposed construction contains limitations not anticipated by the claim language, the specification, or the Federal Circuit opinion. Additionally, neither proposed construction adequately defines either the term "continuously" or "adjustably".

First, the parties' proposed constructions of the phrase "adjustably and continuously biased" also incorporate the parties' proposed constructions of the term "biasing elements". *See* docket no. 72, exh. B., p. 1. Velan also inserts its proposed requirement that any device covered under the patent must possess an adjustment mechanism. Thus, it appears both parties concocted this dispute over the term "adjustably and continuously biased" as another opportunity to promote their proposed construction of the term "biasing elements" and other previous arguments. Although the Court finds the parties' proposed constructions inadequate and inappropriate, it will proceed to construe the term "adjustably and continuously biased" because this phrase was presented in the parties' briefs and at the *Markman* hearing.

In a previous discussion, this Court provided its construction of the term "biasing element", and determination of the issue whether Claims 1 and 36 of the '714 patent and Claim 11 of the '131 patent mandate that the claimed device must possess an adjustment mechanism. Further, the Federal Circuit's construction of the term "adjustable" governs any construction of the term "adjustably" as used in the subject claims. Although the Court's construction of the term "biasing elements" and the Federal Circuit's construction of the term "adjustable" would affect any construction of the entirety of Claim 11, because the parties dispute only the construction of the term "adjustably and continuously biased" as it appears in Claim 11, any inclusion of the Court's construction of "biasing elements" or "adjustable" within construction of this subject phrase is not necessary or appropriate. Therefore, the Court will not include within its construction of the entirety of Claim 11 its construction of the terms "biasing elements" and "adjustable".

Next, the Court finds neither party provides adequate proposal for construction of the term "continuously". In their proposed constructions of the phrase "adjustably and continuously biased", both parties used the term "continuously" to construe the same term. In any event, the Court finds the term "continuously" holds a customary meaning which is appropriate for its use in this subject phrase. The term "continuously" commonly means constant or uninterrupted. This common meaning is customary to one skilled in the art at the time of the invention and applies within the context of the subject Claim 11. As described in the specification, the floating, dynamic live loaded seat, although removable, remains coupled to the de-header valve and constantly presses against the sliding blind to create a seal, thus preventing spillage of dangerous hot water and byproduct. *See* docket no. 51, exh. B, Abstract; col. 1, ll. 29-64; col. 10, l.65-col. 11, l.8; col. 14, ll. 55-64; col. 16, ll. 34-46, 51-57. Therefore, as presented within Claim 11, this Court finds "continuously" means the floating, dynamic live loaded seat is biased against the sliding blind constantly, or without interruption.

As discussed previously, the Federal Circuit construed the term "adjustable" to mean the force exerted by the biasing elements upon the live loaded seat is capable of being changed, and this change can occur while the de-heading system is in use. *See* *Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1379-1380. This Court will follow and utilize this construction of "adjustable" in its construction of the phrase "adjustably and continuously biased". Finally, the term "biased", as used in this phrase, has a common and customary meaning to one skilled in the art at the time of the invention. The term means to press upon or exert force

upon. This interpretation may be derived from the context of the claim language, itself, and its usage within the specification. *See* docket no. 51, exh. B, col. 13, 1.61-col. 14, 1.17; col. 14, ll. 55-64; col. 18, ll. 45-62.

Based upon these interpretations, this Court finds the term "adjustably and continuously biased" means the live loaded seat presses against the sliding blind constantly and without interruption while the sliding blind is in its closed position. The magnitude of the force applied by the live loaded seat may be changed, and this change may occur while the de-heading valve system is in use, or in its operative position.

RECOMMENDATION

It is, therefore, the recommendation of the Magistrate Judge that the disputed claims be construed as follows:

A. Biasing Element: a resilient structure, such as a spring, capable of imposing and releasing a force on the dynamic, live loaded seat.

B. Live-Loaded Seat Assembly

1. Dynamic, Live-Loaded Seat Assembly: a movable valve seat acted upon by biasing elements, such as coil springs, that provide a continuous biasing force.

2. Live-Loaded Seat Adjustment Mechanism: an arrangement of connected parts governing the magnitude of that biasing force during use of the de-heading valve.

C. Adjustably and Continuously Biased: the live loaded seat presses against the sliding blind constantly and without interruption while the sliding blind is in its closed position. The magnitude of the force applied by the live loaded seat may be changed, and this change may occur while the de-heading system is in use.

Instructions for Service and Notice of Right to Appeal/Object

The United States District Clerk shall serve a copy of this United States Magistrate Judge's Memorandum and Recommendation on all parties by either (1) electronic transmittal to all parties represented by attorneys registered as a "Filing User" with the Clerk of Court, or (2) by mailing a copy to those not registered by certified mail, return receipt requested. Pursuant to Title 28 U.S.C. Section 636(b)(1) and Rule 72(b), Fed.R.Civ.P., any party who desires to object to this report must serve and file written objections to the Memorandum and Recommendation within 10 days after being served with a copy unless this time period is modified by the district court. A party filing objections must specifically identify those findings, conclusions or recommendations to which objections are being made and the basis for such objections; the district court need not consider frivolous, conclusive or general objections. *Such party shall file the objections with the clerk of the court, and serve the objections on all other parties and the magistrate judge.* A party's failure to file written objections to the proposed findings, conclusions and recommendations contained in this report shall bar the party from a de novo determination by the district court. *See* Thomas v. Arn, 474 U.S. 140, 150, 106 S.Ct. 466, 88 L.Ed.2d 435 (1985). Additionally, any failure to file written objections to the proposed findings, conclusions and recommendation contained in this Memorandum and Recommendation within 10 days after being served with a copy shall bar the aggrieved party, except upon grounds of plain error, from attacking on appeal the unobjected-to proposed factual findings and legal conclusions accepted by the district court. *Douglass v. United Servs. Auto. Ass'n*, 79 F.3d 1413, 1428 (5th Cir.1996).

FN1. On March 1, 2005, Curtiss-Wright, filed a motion for preliminary injunction in which it sought to preclude Velan from introducing its alleged infringing product at an industry conference and from further conduct constituting infringement of its patents during the pendency of this litigation. This Court held a hearing on plaintiff's motion for preliminary injunction, and the parties consented to the Magistrate Judge's disposition of that motion. In its Order granting the motion for preliminary injunction, this Court issued a finding regarding its construction of the term "adjustable" as used in the patents at issue. Velan appealed this Court's findings to the Federal Circuit.

FN2. There is no dispute that "live loaded seat adjustment mechanism" and "live seat adjustment mechanism" have the same meaning. Also, there is no dispute that "to control the exertable force for said dynamic, live loaded seat" and "for controlling the amount of exertable force of said dynamic, live loaded seat" have the same meaning. *See* Velan brief, Docket no. 51, p. 16, n. 5.

FN3. The Court finds Velan's addition of "Belleville washers" as an additional example of biasing elements to be immaterial, and therefore, the term is omitted in its construction.

W.D.Tex.,2006.

Curtiss-Wright Flow Control Corp. v. Velan, Inc.

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