

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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EPIC LIFT SYSTEMS, LLC,  
Petitioner,

v.

INTEGRATED PRODUCTION SERVICES, INC.,  
Patent Owner.

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Case IPR2015-00430  
Patent 6,719,060 B1

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Before JAMES P. CALVE, RICHARD E. RICE, and  
CARL M. DeFRANCO, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION  
Denying Request for Rehearing  
37 C.F.R. § 42.71

## I. INTRODUCTION

Petitioner Epic Lift Systems (“Epic”) filed a Petition requesting an *inter partes* review of claims 1, 5–9, 13–15, and 22–24 of U.S. Patent No. 6,719,060 B1 (Ex. 1001, “the ’060 patent”). Paper 2 (“Pet.”). We instituted *inter partes* review of all claims under 35 U.S.C. § 103(a) for obviousness over Wells<sup>1</sup> and Knox.<sup>2</sup> Paper 9 (“Decision”), 26. Epic filed a request for rehearing of our decision not to institute *inter partes* review of claims 1, 5–9, 13–15, and 22–24 for anticipation by Wells. Paper 14 (“Req. Reh’g”), 1–2. In determining whether to institute an *inter partes* review of a patent, the Board may “deny some or all grounds for unpatentability for some or all of the challenged claims.” 37 C.F.R. § 42.108(b). When rehearing a decision on petition, the Board will review the decision for an abuse of discretion. 37 C.F.R. § 42.71(c). The party requesting rehearing bears the burden of showing an abuse of discretion, and “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” 37 C.F.R. § 42.71(d).

## II. DISCUSSION

First, Epic asserts that the Board overlooked arguments and testimony that Wells discloses a sleeve that is held in the housing by a pressure drop produced by a variable cross-section flow passage, as recited in claims 1 and 9. Req. Reh’g 1, 5–6 (citing Pet. 37–38; Ex. 1002 ¶ 112). Epic asserts that its arguments and evidence show that the sleeve is held in the wellhead by a

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<sup>1</sup> US 6,209,637 B1 issued April 3, 2001 (Ex. 1003).

<sup>2</sup> US 2,821,142 issued January 28, 1958 (Ex. 1006).

pressure drop and the upward flow of gas in high flow conditions even when bypass 36 is used and when an auto-catcher is not used to ensure that the mandrel reaches the bottom before the sleeve. *Id.*

Epic's arguments do not persuade us that we overlooked any matter. Claims 1 and 9 recite that the housing, separator rod, and sleeve provide flow passages for formation contents or flow, "at least one of the flow passages being of variable cross-sectional size producing a pressure drop sufficient to hold the sleeve in the housing against gravity." The Decision stated that "Epic does not explain adequately how bypass 36 produces a pressure drop across sleeve 38 sufficient to hold sleeve 38 in well head assembly 20 against gravity." Decision 13, 14. The issue is not whether sleeve 38 is stuck or held in well head assembly 20 in certain conditions. The issue is whether sleeve 38 is held in the wellhead by a pressure drop produced by a flow passage of variable cross-sectional size, as claimed.

Epic's contention that sleeve 38 can be pinned or stuck in well head assembly 38 does not establish that the sticking results from a pressure drop produced by a variable cross section flow passage. Pet. 37–38. The Petition presented evidence that high flow conditions in production string 12 cause sleeve 38 to be held in well head assembly 20. *See id.* The Petition did not show that such high flow conditions (and sticking) produce a pressure drop or result from a variable cross section flow passage. *Id.*

The disclosure in Wells that the sleeve is stuck or pinned in the well head assembly 20 by the upward flow of gas does not necessarily mean that sleeve 38 is held in well head assembly 20 by a pressure drop produced by a variable cross section flow passage. *See* Req. Reh'g 6–7. To the contrary, Wells discloses that sleeve 38 is pinned in well head assembly 20 by the

formation flow through production string 12, which appears to be a uniform cross section flow passage. Ex. 1003, 3:62–4:1–8, Fig. 1.

Further, Wells discloses that bypass 36 helps to prevent sleeve 38 from being held in the wellhead. Ex. 1003, 6:26–27. Wells discloses that gas flowing through well head assembly 20 has a tendency to move through bypass 36 “rather than pinning the sleeve 38 against the stop 100.” *Id.* at 6:31–34, Fig. 1. Thus, Wells discloses bypass 36 operating to prevent sleeve 38 from being held in well head assembly 20. The Cosby Declaration states that opening valve 103 of bypass 36 reduces a pressure drop across sleeve 38. Ex. 1002 ¶ 112 & n.7. Thus, bypass 36 reduces or eliminates a pressure drop that otherwise may hold or pin sleeve 38 in well head assembly 20.

Epic argues that the Decision misapprehended or overlooked evidence that a variable passageway between the rod and sleeve holds the sleeve in the wellhead. Req. Reh’g 7. In particular, Epic argues that “there **must** be a passage between the top of the rod and sleeve when the sleeve is on the rod, otherwise the sleeve would tend to get stuck on the rod.” *Id.* Epic asserts that the annotated drawings in the Petition illustrate that there must be a space between the top of the sleeve and rod to allow the sleeve to move up and down the rod because the drawings are based on relative dimensions of the original figures. *Id.* at 7–8. Epic also asserts that “the most restricted portion of the variable passage between the sleeve and rod (*i.e.*, the red portion) is what helps create the pressure drop that holds the sleeve in the wellhead in the embodiment that does not use an auto-catcher.” *Id.* at 8.

These arguments do not persuade us that we overlooked any matter. Drawings cannot be relied on to disclose dimensions or proportions absent a disclosure in the specification of dimensions or proportions, or a disclosure

that the drawings are drawn to scale. *Hockerson-Halberstadt, Inc. v. Avia Grp. Int'l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000). For this reason, the Cosby Declaration's reliance on the '637 patent drawings to show relative sizes of sleeve 38 and rod 92 and a flow passage (see Ex. 1003 ¶ 143) is not persuasive. Second, Wells discloses that bypass 36 provides a flow passage that prevents sleeve 38 from getting stuck or pinned in well head assembly 20. Ex. 1003, 6:26–34. The disclosure in the '637 patent that sleeve 38 tends to get stuck on rod 92 without bypass 36 indicates the lack of a flow passage between rod 92 and sleeve 38. The Cosby Declaration states that sleeve 38 tends to get pinned in well head assembly 20 “[b]ecause the rod largely occupies the central passage of the sleeve, it creates a *sealing effect* similar to the mandrel when it is nested in the sleeve.” Ex. 1002 ¶¶ 115, 150 (emphasis added). Thus, the Cosby Declaration asserts that any passage between rod 92 and sleeve 38 does not permit a flow of formation contents. This is so because Wells discloses that sleeve 38 and mandrel 40 have flow bypasses that allow them to fall downwardly in tubing 12. Ex. 1003, 5:1–16. However, those flow passages are closed or restricted when sleeve 38 and mandrel 40 unite into a single component (piston 26) at the bottom of the well, so gas entering well 10 through perforations 16 pushes piston 26 upwardly. *Id.* at 5:13–32, 4:59–67.

Epic also argues that the Board overlooked or misapprehended evidence that Wells teaches a variable passageway between the sleeve and housing sufficient to hold the sleeve in the housing. Req. Reh'g 8. Epic argues that sleeve 38 restricts bypass 36 as sleeve 38 moves down rod 92 and thereby varies the size of bypass 36 to create a pressure drop to hold sleeve 38 on rod 92. *Id.* at 9.

These arguments do not persuade us that we overlooked any matter. Wells discloses that formation flow in production string 12 pins sleeve 38 in well head assembly 20 and diversion of that flow through bypass 36 helps to prevent sleeve 38 from sticking in well head assembly 20. Ex. 1003, 6:26–34. Wells also discloses a pressure drop or pressure differential that moves piston 26 upward in well 10 when mandrel 40 nests in sleeve 38. Ex. 1003, 5:22–55. The nesting blocks flow passages between sleeve 38, mandrel 40, and string 12 and creates a pressure drop that moves piston 26 upwardly in well 10. *Id.* at 6:17–19. Gas flowing upwardly through well head assembly 20 tends to pin sleeve 38 against stop 100, unless bypass 36 diverts gas flow away from sleeve 38 and well head assembly 20. *Id.* at 6:26–34. Therefore, bypass 36 *reduces* or eliminates, rather than produces, any pressure drop that may be holding sleeve 38 in well head assembly 20.

Epic argues that the Board overlooked or misapprehended teachings in Wells of a variable passage between the rod and housing sufficient to hold the sleeve in the housing. Req. Reh’g. 10. Epic argues that Figure A in the Petition clearly illustrates a passage in green between housing and rod 92, and that this passage varies as the sleeve slides up on rod 92. *Id.* at 10–11.

These arguments do not persuade us that we overlooked any matter. The Petition asserted that Wells taught a variable flow passage between the housing and separation rod. Pet. 42. The Cosby Declaration stated that the passage between rod 92 and the housing was reduced when sleeve 38 passed between them and “[a]s the size of the passage between the housing and rod is decreased by the sleeve, a pressure drop sufficient to hold or ‘pin’ the sleeve in the well head is created.” Ex. 1002 ¶ 116. The Cosby Declaration did not cite any support for this contention. *Id.*; see Decision 12.

Wells does disclose grooves 101 in piston stop 100 to allow formation products to pass around stop 100 and up into flow line 102. Ex. 1003, 6:13–17. These formation products are pushed *above* piston 26 as piston 26 rises upwardly toward well head assembly 20 and then this slug of liquid passes through wing valve 24 into flow line 102 to a surface treatment facility at well head assembly 20. *Id.* at 5:16–21, 7:13–15. Epic did not identify any disclosure that formation gas flow, which creates a pressure drop across piston 26 and pushes piston 26 upwardly in production string 12, also passes through sleeve 38 or grooves 101 in well head assembly 20. Thus, Epic did not persuade us that Wells discloses any flow passages between rod 92 and housing 12, or between sleeve 38 and rod 92, much less flow passages that produce a pressure drop sufficient to hold sleeve 38 in the housing.

Epic’s contentions regarding claims 8 and 15 are not persuasive for the reasons discussed above to include the fact that Epic did not persuade us that Wells discloses *flow* passages for formation contents that produce a pressure drop sufficient to hold the sleeve in the housing against gravity.

Epic further argues that the Board misapprehended or overlooked the teaching in Wells that the sleeve is released from the wellhead by restricting the flow of formation contents. Req. Reh’g 14–15. Epic also argues that the only way to control the release of the sleeve is to close a valve at the surface such as main valves 22. *Id.* at 15.

This argument does not persuade us that we overlooked any matter. A petition for *inter partes* review must identify the claim, specific statutory grounds on which the challenge to the claim is based, and how the construed claim is unpatentable under the specified statutory grounds by specifying where each element of the claim is found in the prior art patents or printed

publications relied upon. 37 C.F.R. § 42.104(b). Epic asserted that the only two ways of ensuring that the sleeve drops off the separator rod and down to the bottom of the well when the upward flow of gas has pinned the sleeve in the well head were: (1) shutting the well in by closing a valve at the surface to stop the upward flow of gas; or (2) allowing the well flow to decline naturally to a point that the sleeve falls off the rod. Pet. 58; Ex. 1002 ¶ 228 (citing Ex. 1003, 2:40–42 (“A major disadvantage of conventional plungers lifts is the well must be shut in so the piston is able to fall to the bottom of the well.”)). Epic did not identify any disclosure that master valves 22 are used to shut in the well and release piston 26 from well head assembly 20. Pet. 57–58; Ex. 1002 ¶ 228. Wells discloses only that master valves 22 and wing valve 24 deliver produced formation products to a surface facility for separation, measurement, and treatment. Ex. 1003, 4:12–16, Fig. 1. Wells also discloses that bypass 36 helps to prevent piston 26 from sticking in well head assembly 20 by diverting gas flow away from well head assembly 20. Ex. 1003, 6:26–34. Thus, Epic did not persuade us that Wells inherently teaches releasing sleeve 38 from well head assembly 20 must occur by restricting the flow of formation contents, as claimed.

### III. CONCLUSION

Accordingly, Epic has not carried its burden of demonstrating that our Decision denying institution of *inter partes* review of claims 1, 5–9, 13–15, and 22–24 of the ’060 patent as anticipated by Wells misapprehended or overlooked any matters, or that the Board abused its discretion.

### ORDER

For the reasons given, it is

ORDERED that the request for rehearing in part is *denied*.

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