NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

TUBULAR ROLLERS, LLC, ROLLING TOOL, INC., H. LESTER WALD,

Plaintiffs-Appellants

v.

MAXIMUS OILFIELD PRODUCTS, LLC,

 $Defendant ext{-}Appellee$

NABORS DRILLING TECHNOLOGIES USA, INC.,

Defendant

2021-2319

Appeal from the United States District Court for the Southern District of Texas in No. 4:19-cv-03113, Judge Andrew S. Hanen.

Decided: June 28, 2023

RYAN D. LEVY, Patterson Intellectual Property Law, P.C., Nashville, TN, argued for plaintiffs-appellants. Also represented by MARK ANDREW KILGORE, NATHAN I. NORTH, SETH R. OGDEN; PHILLIP LEO FREE, JR., Phillip Free Law, PLLC, Edmond, OK.

2 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

JOHN HANSON BARR, JR., Meade Neese & Barr LLP, Houston, TX, argued for defendant-appellee. Also represented by Kyrie Cameron, Edgar Neil Gonzalez, John Allen Yates, Patterson & Sheridan LLP, Houston, TX.

Before REYNA, HUGHES, and CUNNINGHAM, Circuit Judges. Opinion for the court filed by Circuit Judge CUNNINGHAM. Opinion dissenting-in-part filed by Circuit Judge REYNA. CUNNINGHAM, Circuit Judge.

Tubular Rollers, LLC, Rolling Tool, Inc., and H. Lester Wald (collectively, "Tubular") appeal from decisions of the United States District Court for the Southern District of Texas granting summary judgment of noninfringement in favor of Maximus Oilfields Products, LLC ("Maximus") as to three of Tubular's patents: U.S. Patent Nos. 9,057,224, 9,291,009, and 9,598,915 (collectively, the "Asserted Patents"). Tubular Rollers, LLC v. Maximus Oilfield Prods., *LLC*, 506 F. Supp. 3d 489 (S.D. Tex. 2020) ("Decision I"); Tubular Rollers, LLC v. Maximus Oilfield Prods., LLC, 554 F. Supp. 3d 886 (S.D. Tex. 2021) ("Decision II"). In its decisions, the district court granted summary judgment of noninfringement of (i) claims 18-20 of the '224 patent, claims 1-4, 6-12, and 15 of the '009 patent, and claims 16-20 and 24-26 of the '915 patent based on its construction of parallel, and (ii) claims 1-5, 9-12, and 15 of the '224 patent based on its construction of unrestricted.² Decision

¹ These asserted claims either recite, or depend from claims reciting, the Asserted Patents' parallel axes limitation (the "Parallel Claims").

² These asserted claims include one independent claim reciting the '224 patent's unrestricted rotation limitation and certain dependent claims (the "Unrestricted Claims").

I at 493–96; Decision II at 891–95; see also Tubular Rollers, LLC v. Maximus Oilfield Prods., LLC, No. 4:19-CV-3113, 2020 WL 6278284, at *6–10 (S.D. Tex. Sept. 4, 2020) ("Claim Construction Order").

Because the district court did not err in its construction of parallel, we *affirm* the district court's grant of summary judgment of noninfringement of claims 18–20 of the '224 patent, claims 1–4, 6–12, and 15 of the '009 patent, and claims 16–20 and 24–26 of the '915 patent, which is predicated on that construction. And although we agree with the district court's construction of unrestricted, we *vacate* the district court's grant of summary judgment of noninfringement of claims 1–5, 9–12, and 15 of the '224 patent and *remand* for further proceedings because the district court failed to conduct sufficient infringement analyses as to those claims.

I. Background

A. The Asserted Patents

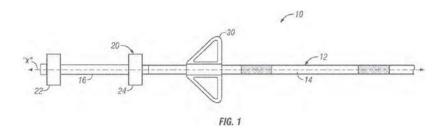
The Asserted Patents are all entitled "Devices and Methods for Manually Moving Racked Tubulars." J.A. 14, 34, 52. The Asserted Patents cover a tool, and the related method, for moving oil and gas drilling pipes called "tubulars." '224 patent col. 1 ll. 6–9, col. 2 ll. 30–34, 47–50; *Decision I* at 490. Tubulars are typically hollow steel or aluminum alloy pipes that are between 30 and 45 feet long and weigh between 1100 and 3600 pounds. *Decision I* at 491. Workers commonly stacked tubulars using a "handover-hand" motion, rolling them by hand to a rack where they were stacked several layers deep. '224 patent col. 2 ll. 17–24; *Decision I* at 491. This technique was time-consuming and dangerous. *Decision I* at 491; '224 patent col. 2 ll.

³ Because the Asserted Patents are related and share a specification, we generally cite to the specification of the '224 patent.

4 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

24–29. The patented tool attempts to solve these problems by allowing workers "to move the [tubular] faster and more safely than could be done by moving the [tubular] without the tool." '224 patent col. 2 ll. 44–46.

Figure 1 shows a preferred embodiment of the present invention:



'224 patent, fig. 1, col. 1 ll. 21–23, col. 3 ll. 1–23. The tool has a wheel section 16 on one end and handle section 14 on the other end. *Id.* col. 3 ll. 1–3. In the wheel section, there is a wheel assembly 20 mounted for rotation along the wheel section's longitudinal axis X. *Id.* col. 3 ll. 10–11.

One issue in this appeal concerns the axes of the wheel and handle sections, each of which has a longitudinal axis. *Id.* col. 3 ll. 3–4. Independent asserted claim 16 and dependent asserted claim 26 of the '915 patent contain the two limitations relevant to this issue.

Asserted claim 16 recites:

16. A tool for manually moving a racked tubular along a raised horizontal surface, wherein the racked tubular has an open end continuous with an inner diameter, the tool comprising:

a shaft having a handle section with a longitudinal axis and a wheel section with a longitudinal axis, wherein the longitudinal axes of the handle section and the wheel section are parallel, wherein the handle section and the wheel section and the wheel section extend in

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

opposite directions from each other, and wherein the wheel section terminates in a free end that is insertable into the inner diameter of the racked tubular; and

a plurality of interchangeable wheel assemblies, wherein each of the plurality of wheel assemblies comprises a set of two wheels that are mountable for rotation about the longitudinal axis of the wheel section of the shaft, wherein each of the sets of two wheels has a maximum diameter sized to be received inside the racked tubular, and wherein the diameter of the wheels in each of the plurality of wheel assemblies is different from the wheels in the other wheel assemblies.

'915 patent col. 8 ll. 35–55 (emphasis added).

Asserted claim 26 recites:

26. The tool of claim 16 wherein the longitudinal axes of the handle section and the wheel section are collinear.

Id. col. 9 ll. 15–16 (emphasis added).

The other issue in this appeal concerns the wheel assembly mounted for unrestricted rotation. Independent asserted claim 1 of the '224 patent contains the limitation relevant to this issue, reciting:

1. A tool for manually moving a racked tubular along a raised horizontal surface, wherein the racked tubular has an open end continuous with an inner diameter, the tool comprising:

a shaft having a handle section with a longitudinal axis and a wheel section with a longitudinal axis, wherein the longitudinal

6 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

axes of the handle section and the wheel section are collinear;

a wheel assembly mounted for unrestricted rotation about the longitudinal axis of the wheel section of the shaft; and

wherein the wheel section of the shaft and the wheel assembly mounted thereon form a distal end of the tool, and wherein the distal end of the tool is configured to be received inside the racked tubular so that the wheel assembly rollingly engages the racked tubular.

'224 patent col. 7 ll. 9-24 (emphasis added).

B. Procedural History

In 2019, Tubular sued Maximus and Nabors Drilling Technologies USA, Inc. ("Nabors"), alleging that the tool that Maximus manufactures and sells to Nabors for drilling usage infringed certain claims of the Asserted Patents. See J.A. 78–90; Decision I at 490–91.⁴ The district court construed three claim terms relevant to this appeal. First, it construed parallel to mean "extending in the same direction, everywhere equidistant, and not meeting." Claim Construction Order at *8–9. In doing so, it rejected Tubular's proposed construction of "everywhere equally distant, including collinear." Id. (emphasis added). Second, the district court adopted Tubular's proposed collinear construction as "lying on or passing through the same straight

_

⁴ In its original complaint, Tubular sued Nabors Industries, Ltd., but substituted Nabors Drilling Technologies USA, Inc. as the proper defendant in its amended complaint. *See Tubular Rollers, LLC v. Maximus Oilfield Prods., LLC*, No. 4:19-CV-3113 (S.D. Tex. Oct. 13, 2020), ECF No. 44.

line." *Id.* at *9. Lastly, it declined to construe unrestricted beyond its plain and ordinary meaning of "not restricted," and rejected Tubular's proposed construction of "no additional mechanical resistance to rotation." *Id.* at *6–7, 9.

Thereafter, Maximus and Nabors filed their first motion for summary judgment of noninfringement, arguing the accused tool could not infringe the Parallel Claims because the accused tool either has one single axis or two collinear axes. See J.A. 1310–11, 1315–17. The district court granted the motion with respect to the Parallel Claims. See Decision I at 493–96. Because Tubular admitted that the axes of the accused tool's handle and wheel sections were collinear and because the parallel and collinear claim terms were "mutually exclusive" as construed, the accused tool could not infringe the Parallel Claims. See id. at 494–95.

Maximus and Nabors later filed a second motion for summary judgment of noninfringement, arguing the accused tool could not infringe the Unrestricted Claims because the accused tool's bolts restrict the rotation of the wheel assembly. See J.A. 1625–39. The district court granted the motion in part as to Maximus and denied the motion in part as to Nabors. See Decision II at 891–95.

On August 13, 2021, the district court entered a final judgment under Federal Rule of Civil Procedure 54(b) in favor of Maximus and dismissed with prejudice "any and all" of Tubular's claims against Maximus. J.A. 1. Tubular now appeals, and the district court has stayed the case pending resolution of this appeal. See Tubular Rollers,

⁵ Although the district court indicated that unrestricted does not require any construction, it also clarified that a person of ordinary skill would understand unrestricted to mean "not restricted." *Claim Construction Order* at *7.

Case: 21-2319 Document: 51 Page: 8 Filed: 06/28/2023

8 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

LLC v. Maximus Oilfield Prods., LLC, No. 4:19-CV-3113 (S.D. Tex. Mar. 18, 2022), ECF No. 108. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II. DISCUSSION

A. Standard of Review

"While the ultimate construction of a claim term is a legal question reviewed de novo, underlying factual determinations made by the district court are reviewed for clear error." Enzo Biochem Inc. v. Applera Corp., 780 F.3d 1149, 1153 (Fed. Cir. 2015) (citation omitted). "[A] claim term is given its ordinary and customary meaning—the meaning that a 'term would have to a person of ordinary skill in the art in question at the time of the invention." Howmedica Osteonics Corp. v. Zimmer, Inc., 822 F.3d 1312, 1320 (Fed. Cir. 2016) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc)). "[A] skilled artisan reads a claim term not only in the context of the claim at issue, but also in the context of the entire patent, including the written description and prosecution history, as well as relevant extrinsic evidence." Id. at 1320-21 (citing Phillips, 415 F.3d at 1313–17).

We review a grant of summary judgment under the law of the regional circuit, here the Fifth Circuit. See Cheetah Omni LLC v. AT&T Servs., Inc., 949 F.3d 691, 693 (Fed. Cir. 2020). The Fifth Circuit reviews a grant of summary judgment de novo. Cunningham v. Circle 8 Crane Servs., L.L.C., 64 F.4th 597, 599–600 (5th Cir. 2023) (citation omitted). Summary judgment is appropriate when the moving party demonstrates that "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). We construe the evidence in the light most favorable to the nonmovant and draw all reasonable inferences in that party's favor. Cunningham, 64 F.4th at 599–600 (citation omitted).

Tubular presents three arguments on appeal. First, Tubular argues that the district court adopted an erroneous construction of parallel contradicting the intrinsic evidence and that under the correct construction this court should reverse or vacate the decision granting summary judgment of noninfringement as to the Parallel Claims. See Appellants' Br. 19–20, 23–41, 57–58. Second, Tubular argues that the district court adopted an erroneous construction of unrestricted at odds with the prosecution history. See id. at 20–21, 42–51. Tubular further contends that the district court's summary judgment decision as to the Unrestricted Claims was erroneous because the decision effectively added a limitation to unrestricted requiring some minimum angle of rotation, and the decision lacked a sufficient infringement analysis. See id. Third, Tubular argues that the district court erred by granting summary judgment of noninfringement with respect to the Unrestricted Claims without addressing infringement under this court's capability precedent. See id. at 21–22, 51–57. We address each argument in turn.

B. Parallel Claims

i. Claim Construction

Tubular first challenges the district court's construction of parallel as "extending in the same direction, everywhere equidistant, and not meeting." *See* Appellants' Br. 19–20, 23–41. Tubular argues that the intrinsic evidence does not support this construction and rather supports its proposed construction: "everywhere equally distant, including collinear." *Id.* On appeal, Tubular does not invoke lexicography or assert that the specification expressly redefines the plain and ordinary meaning of parallel. *See id.* at 2, 33 & n.6, 34; Appellants' Reply Br. 1–2, 5–6, 16; Oral Arg. at 2:38–53, https://oralarguments.cafc.uscourts.gov/de fault.aspx?fl=21-2319_10052022.mp3. Instead, the crux of Tubular's arguments is that collinear is a subset of parallel, Appellants' Br. 23–24, the former of which the district

10 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

court construed—as Tubular proposed—to mean "lying on or passing through the same straight line." Claim Construction Order at *9 (emphasis added).

We first address a preliminary argument raised by Tubular. Tubular argues that the district court's statement in its claim construction order explaining that it was "not relevant" to the parallel construction whether parallel and collinear were mutually exclusive, id., shows that the district court "failed to resolve a dispute[.]" See Appellants' Br. 29 n.4 (citing O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1360 (Fed. Cir. 2008)). We disagree. The district court construed parallel and collinear. Claim Construction Order at *8-9, and resolved the parties' dispute "regarding the proper scope." See O2 Micro. 521 F.3d at 1360. The "dispute" Tubular raises concerns the *impact* of these two constructions: whether the constructions render parallel and collinear mutually exclusive. As the district court correctly explained in its summary judgment decisions, the constructions "lead to the inescapable conclusion that, in this context, the terms are mutually exclusive." Decision II at 891 n.2; see also Decision I at 494–95. Although the district court's statement in its claim construction order does seem to contradict these later statements in its summary judgment decisions, this seeming contradiction does not indicate an unresolved claim construction dispute.

Moving onto the substantive claim construction challenge, on appeal, Tubular concedes that it is "not argu[ing] that the specification's disclosure show[s] a clear intent to redefine 'parallel' by lexicography." Appellants' Reply Br. 6; see also Appellants' Br. 2, 33 & n.6, 34; Appellants' Reply Br. 1–2, 5, 16. Rather, Tubular contends that the only two specification excerpts discussing parallel and collinear axes both describe collinear as a subset of parallel. See Appellants' Br. 31–35. However, we find that the overall specification supports the opposite reading. One specification excerpt states that "the longitudinal axis of the wheel

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 11

assembly 120, the main handle 116 and the extension handle 118 all are *collinear* with each other, or at least parallel." '224 patent col. 3 ll. 51–54 (emphases added). The use of the "disjunctive ('or') as the coordinating conjunction" here "reveals the relationship" between collinear and parallel as "alternatives," not as one being a subset of the other. See, e.g., SkinMedica, Inc. v. Histogen Inc., 727 F.3d 1187, 1199 (Fed. Cir. 2013) (citations omitted); see also Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc., 853 F.3d 1272, 1280 (Fed. Cir. 2017) ("Using the disjunctive 'or' as in 'numbers or symbols' designates numbers and symbols as distinct alternatives to one another.") (citations omitted) (emphasis added). The other pertinent portion of the specification states that "[p]referably these axes are parallel and most preferably these axes are collinear[.]" '224 patent col. 3 ll. 4–6. This excerpt is not dispositive. While this excerpt can be read to interpret parallel as including collinear, it can also be read to interpret collinear and parallel as distinct, mutually exclusive terms. Accordingly, we find that the overall specification supports a reading where collinear and parallel are mutually exclusive terms.

Tubular also points to the prosecution history, contending that two separate rejections show a mutual understanding between the applicants and the examiner that collinear is a subset of parallel. See Appellants' Br. 35–39. The dissent points to a third rejection for the same contention. See Dissent at 6. In the rejections—two during prosecution of the '009 patent and one during prosecution of the '224 patent—the examiner issued anticipation rejections in view of U.S. Patent Application Publication No. 2008/0072543 ("Watson") and U.S. Patent No. 4,102,513 ("Guard"), both of which cover wrap dispensers. See J.A. 632 ('009 patent application's rejections in view of Watson

12 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

and Guard), 1017–22 (Watson), 6 1042–45 (Guard), 458 ('224 patent application's rejection in view of Guard). On appeal, Tubular characterizes the axes of the wheel and handle sections of these two prior art references as collinear. See Appellants' Br. 9–11, 36–39. Tubular argues because the rejected claims recited parallel axes, the examiner's rejection in view of these references shows the examiner believed collinear was a subset of parallel and the applicants prosecuted the patents based on that understanding. See id. at 36–39.

We disagree. Although Tubular characterizes Watson and Guard's axes as collinear, the examiner never made such an express determination. When asked at oral argument where the examiner said "that it understood explicitly collinear to be parallel," Tubular admitted "[t]he examiner did not make that statement." Oral Arg. at 8:17-24. Moreover, when asked at oral argument whether there were "any instances in the prosecution history that support[ed] [its] reading of collinear being a subset of parallel," Tubular merely stated that the applicants "never [made] an argument . . . that there was a mutual exclusivity between collinear and parallel." *Id.* at 35:10–38. But "just as we can draw no inference from what the examiner did not say, we can draw no inference from what [the applicants] did not argue." DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1326 (Fed. Cir. 2001). We do not find that the

The examiner's rejections were based on the Watson patent application publication, but the parties only provided the issued patent in the appellate record. J.A. 1017–22. We take judicial notice of the publicly-accessible Watson patent application publication. See Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 954 n.27 (Fed. Cir. 1993). Our analysis remains unchanged regardless of which Watson reference we consider.

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 13

prosecution history supports Tubular's proposed construc-

Lastly, Tubular relies heavily on the Asserted Patents' independent-dependent claim structure to contend that collinear is a subset of parallel. See Appellants' Br. 25–28. Tubular points to claims 16 and 26 of the '915 patent as an example. See id. at 27. While independent claim 16 recites a tool "wherein the longitudinal axes of the handle section and the wheel section are parallel," dependent claim 26 recites the same tool with the only difference being that the axes "are collinear." '915 patent col. 8 ll. 35–55, col. 9 ll. 15–16 (emphases added). Tubular contends that the parallel term in the independent claim must include the collinear term in the dependent claim. Appellants' Br. 26–28. Tubular also argues that the district court's construction violates this court's precedent discouraging constructions that render dependent claims "meaningless" because the district court's construction renders twelve dependent collinear claims meaningless: claims 3, 12, 14, 21, and 30 of the '009 patent and claims 5, 12, 13, 14, 19, 25, and 26 of the '915 patent.' See Appellants' Br. at 26–28 (first citing Baxalta Inc. v. Genentech, Inc., 972 F.3d 1341, 1341, 1346 (Fed. Cir. 2020); then citing Intellectual Ventures I LLC v. T-Mobile USA, Inc., 902 F.3d 1372, 1378 (Fed. Cir. 2018); and then citing Ortho-McNeil Pharm., Inc. v. Mylan Labs., *Inc.*, 520 F.3d 1358, 1362 (Fed. Cir. 2008)). Similarly, Tubular argues that the district court's parallel construction

Although Tubular lists twelve dependent claims that may well be rendered meaningless because they recite collinear axes, Appellants' Br. 28, only ten of those claims—five of which are even asserted against Maximus—actually recite collinear axes. Specifically, claim 14 of the '009 patent and claim 14 of the '915 patent recite parallel axes, contrary to Tubular's assertion. *See* '009 patent col. 7 l. 65—col. 8 l. 5; '915 patent col. 8 ll. 23—30.

14 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

excludes the Asserted Patents' preferred embodiment with collinear axes. *See id.* at 31–33.

"While it is true that dependent claims can aid in interpreting the scope of claims from which they depend, they are only an aid to interpretation and are not conclusive." Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp., 831 F.3d 1350, 1360 (Fed. Cir. 2016) (citations omitted). "[C]laim differentiation is a rebuttable presumption that may be overcome by a contrary construction dictated by the written description or prosecution history." Howmedica, 822 F.3d at 1323 (citation omitted). This court has adopted a construction rendering dependent claims meaningless when that construction was supported by either the specification or the prosecution history. See Marine Polymer Techs., Inc. v. HemCon, Inc., 672 F.3d 1350, 1358-59 (Fed. Cir. 2012) (en banc); Regents of Univ. of Cal. v. Dakocytomation Cal., Inc., 517 F.3d 1364, 1371–76 (Fed. Cir. 2008); Enzo, 780 F.3d at 1154–57; Multilayer Stretch, 831 F.3d at 1358–62. We, too, do so here where the overall specification supports a construction of parallel that excludes collinear. And importantly, although some dependent collinear claims may be rendered meaningless under the district court's parallel construction, this construction would have no effect on independent asserted claim 1 of the '224 patent, which recites collinear axes and still survives. See '224 patent col. 7 ll. 9–24. Likewise, claim 1 of the '224 patent covers the collinear preferred embodiment.

The cases on which Tubular relies, where this court adopted a construction that did not render dependent claims meaningless, underline the importance of not resting a construction solely on the independent-dependent claim structure. In those cases, the specification also directly supported the construction, unlike the specification here. See Baxalta, 972 F.3d at 1347–48; Intellectual Ventures, 902 F.3d at 1377–78; Ortho-McNeil, 520 F.3d at 1362. Moreover, the support for Tubular's proposed construction resting solely on this independent-dependent

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 15

claim structure unravels when pressure-testing such logic. For example, if the independent claim recited parallel axes and the dependent claim recited perpendicular axes, the independent-dependent claim structure alone would require us to interpret perpendicular as a subset of parallel. See Oral Arg. at 6:38–55. Tubular's argument leads to the nonsensical result that the plain and ordinary meaning of parallel could hypothetically include perpendicular lines or collinear lines that lie on or pass through the same straight line. "A claim construction that renders asserted claims facially nonsensical cannot be correct." Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP, 616 F.3d 1249, 1255 (Fed. Cir. 2010) (refusing to adopt a claim construction that would create "a physical impossibility" and therefore "render [] the asserted claims nonsensical") (internal quotation marks and citations omitted).

Because the intrinsic evidence supports the district court's construction, we need not consult extrinsic evidence, but we may "so long as the extrinsic evidence does not contradict the meaning otherwise apparent from the intrinsic record." Helmsderfer v. Bobrick Washroom Equip., Inc., 527 F.3d 1379, 1382–83 (Fed. Cir. 2008) (affirming district court's decision to consult extrinsic evidence to determine plain and ordinary meaning of claim term) (citation omitted); see also Ortho-McNeil, 520 F.3d at 1362. This court's *Helmsderfer* decision is instructive. In Helmsderfer, this court affirmed the district court's construction of the term partially that excluded the term totally because, among other things, "[a]ll three dictionaries cited by the district court support[ed] its construction." 527 F.3d at 1382. This court rejected the patent owner's proposed partially construction that included totally because none of the dictionaries supported this construction and instead "specifically contradict[ed]" such a construction. *Id*. at 1382-83.

Here, the district court adopted Maximus and Nabors's proposed plain and ordinary meaning construction of

16 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

"extending in the same direction, everywhere equidistant, and not meeting," which is supported by Merriam-Webster's dictionary's "1a" definition. See Claim Construction Order at *8-9; J.A. 909-10; J.A. 1054-55 (Merriam-Webster); see also Merriam-Webster's Collegiate Dictionary (11th ed. 2014). This construction is further supported by parallel definitions found in geometry textbooks cited by Maximus and Nabors. See J.A. 1069–70 ("Coplanar lines that do not intersect are called parallel lines."), 1072–74 ("Two lines are parallel lines if they are coplanar and do not intersect."). Like in *Helmsderfer*, where all three partially definitions supported the district court's partially construction that excluded totally, all three parallel definitions here support the district court's parallel construction that excludes collinear. And as was also the case in Helmsderfer, these definitions—which specify that parallel lines do not meet or intersect—not only fail to support the patent owner Tubular's proposed construction, but also contradict it.

Tubular argues that the district court should have relied on Merriam-Webster's dictionary's "1b" definition, "everywhere equally distant," because it "is consistent with the intrinsic evidence and was encapsulated in Tubular['s] proposed construction: 'everywhere equally distant, including collinear." Appellants' Br. 30; see also id. at 40-41; Merriam-Webster's Collegiate Dictionary (11th ed. 2014). But even Tubular's selected dictionary definition aligns with the district court's construction because it reguires there to be some "distan[ce]" between the lines. Although Tubular attempted to argue that the "equal[] distan[ce]" could be "zero" at oral argument, Oral Arg. at 3:43-58. Tubular conceded it "did not argue zero is [the] equal distan[ce]" anywhere in its appellate briefing. Id. at 4:17–28. Moreover, Tubular notably fails to point to any support for a definition of parallel where the distance between the two lines can be zero or stating that collinear can be a subset of parallel, despite claiming that its proposed

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 17

construction "is one of several ordinary and customary meanings of 'parallel." Appellants' Reply Br. 2.

We have considered all of Tubular's arguments concerning the parallel construction and find them unpersuasive. The plain and ordinary meaning of the claim term parallel excludes collinear. We conclude that the district court correctly construed parallel in the Asserted Patents as "extending in the same direction, everywhere equidistant, and not meeting."

ii. Summary Judgment of Noninfringement

Moving to the district court's grant of summary judgment of noninfringement as to the Parallel Claims, Tubular's only argument is limited to its claim construction challenge. See Appellants' Reply Br. 17. Because we find that the district court correctly construed parallel, we affirm the district court's grant of summary judgment of noninfringement as to the Parallel Claims. See Wi-LAN USA, Inc. v. Apple Inc., 830 F.3d 1374, 1392–93 (Fed. Cir. 2016).

C. Unrestricted Claims

i. Claim Construction

Turning to the other challenged term, unrestricted, Tubular argues that the district court erred by declining to construe the term beyond its plain and ordinary meaning of "not restricted" and by rejecting its proposed construction of "no additional mechanical resistance to rotation." See Appellants' Br. 20–21, 42–49. Maximus argues the parties agreed below that unrestricted meant "not restricted" and the district court thus properly found that no construction was necessary beyond the term's plain and ordinary meaning. See Appellee's Br. 32. We agree with Maximus. The district court correctly recognized there was no actual dispute about the meaning of unrestricted. See Claim Construction Order at *6–7. Although Tubular advanced below the "no additional mechanical resistance to rotation" construction, J.A. 298, Tubular ultimately

18 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

conceded at the Markman hearing that it was "fine with" adopting the "[p]lain and ordinary meaning," but did not believe that a claim construction was necessary to say that "un" means "not." J.A. 1215 (internal quotation marks omitted); Claim Construction Order at *7. Additionally. Tubular's complaint about the district court's alleged failure to resolve the parties' dispute over the term's scope, see Appellants' Reply 17, is belied by Tubular's statements on appeal stating that "all parties understood 'unrestricted' to refer to resistance to rotation." Appellants' Br. 48; see also id. at 49 ("Appellants believed the plain and ordinary meaning, as all parties and the district court seemed to agree, only included resistance to the rotation."). We conclude that the parties previously agreed to the meaning and scope of unrestricted, leaving no "actual dispute" for the district court to resolve. See O2 Micro, 521 F.3d at 1360.

We also find Tubular's prosecution history argument unavailing. Tubular contends that the prosecution history is at odds with the district court's unrestricted construction and instead supports its construction of "no additional mechanical resistance to rotation." See Appellants' Br. 20–21, 42–49. Although the applicants intended to amend the claims to avoid Watson's resistance and friction mechanism, J.A. 618-19, they "chose to add the term [unrestricted to the claims in order to achieve this result." See K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1364 (Fed. Cir. 1999); J.A. 615. We must "give effect to the term[] chosen by the patentee," not to terms "the applicant[s] could possibly have added." K-2, 191 F.3d at 1364. The district court correctly declined to construe unrestricted beyond its plain and ordinary meaning of "not restricted." Claim Construction Order at *6-7, 9.

Along with challenging the unrestricted construction as issued in the claim construction order, Tubular argues that the district court's second summary judgment decision "effectively added a limitation that 'unrestricted' requires Case: 21-2319 Document: 51 Page: 19 Filed: 06/28/2023

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 19

some undetermined minimum angle of rotation, i.e., 'unrestricted' cannot be met by partial rotation or incomplete rotation." Appellants' Br. 42; see also id. at 49–51. We do not read the decision as "effectively add[ing] a limitation" to unrestricted. Indeed, in the decision, the district court reiterated that its plain and ordinary meaning understanding of unrestricted was "not restricted," as established in its claim construction order. Decision II at 893.

We have considered all of Tubular's arguments on the unrestricted construction and find them unpersuasive. We agree with the district court's decision to decline to construe unrestricted beyond its plain and ordinary meaning of "not restricted."

ii. Summary Judgment of Noninfringement

On appeal, Tubular challenges the district court's summary judgment decision as to the bolts-in-place non-capability theory and the bolts-in-place capability theory. See Appellants' Br. 49–57.8

Although we do not find error in the district court's decision to decline to construe unrestricted beyond its plain and ordinary meaning of "not restricted," we agree with Tubular that the district court erred in granting summary judgment of noninfringement as to the Unrestricted Claims "with virtually no substantive analysis." Appellants' Br. 49. Tubular contends that the district court failed to sufficiently analyze whether the accused tool, with its bolts in place, infringes because the unrestricted construction does not require 360-degree rotation (the "bolts-in-place non-capability theory"). See id. at 49–50. Tubular

⁸ Tubular does not challenge the district court's finding that Maximus does not infringe when the accused tool's bolts are removed because there was no evidence that Maximus itself removes the bolts (the "bolts-removed theory"). *See Decision II* at 893–94.

20 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

asserts that the district court's infringement analysis simply "consist[ed] of listing the parties' arguments and concluding that [Tubular's] arguments [we]re 'not enough to overcome summary judgment." Id. at 49 (quoting Decision II at 892–93). Tubular is correct. The district court performed little to no analysis on this issue and failed to explain how there are no genuine factual disputes concerning the accused tool with its bolts in place—foreclosing any meaningful review of the district court's infringement analysis on appeal.⁹ See Decision II at 892–93; Nazomi Comme'ns, Inc. v. Arm Holdings, PLC, 403 F.3d 1364, 1372 (Fed. Cir. 2005). "Without such record evidence, this court cannot tell whether a dispute of material fact bars a finding of infringement on summary judgment." Nazomi, 403 F.3d at 1372.

Similarly, Tubular contests the district court's grant of summary judgment of noninfringement as to the Unrestricted Claims with respect to Tubular's theory that the accused tool, with its bolts in place, infringes because the tool is capable of infringement given that its bolts are easily removed (the "bolts-in-place capability theory"). See Appellants' Br. 21–22, 51–57. Tubular argues the district court erred by granting summary judgment in Maximus's favor as to the Unrestricted Claims without assessing this theory under this court's capability precedent. See id. Tubular is again correct. Although the district court acknowledged that Tubular asserted its bolts-in-place capability theory, see Decision II at 893, it performed no analysis of the applicability of this theory or whether the accused tool infringed the Unrestricted Claims according to this theory

⁹ Maximus points to the district court's consideration of statements by Tubular's counsel and expert, Appellee's Br. 13–14, 35–36, but the district court's mention of these statements was part of its mere listing of party arguments. *Decision II* at 893.

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 21

under this court's capability precedent. Because the district court failed to perform any analysis of Tubular's bolts-in-place capability theory, we are again foreclosed from conducting any meaningful review of the district court's infringement analysis on appeal.

Accordingly, we vacate the district court's grant of summary judgment of noninfringement as to the Unrestricted Claims with respect to both of Tubular's bolts-in-place theories and remand for the district court to conduct proper infringement analyses. We are not suggesting any particular outcome on infringement; we are simply instructing the district court to conduct sufficient infringement analyses as to the Unrestricted Claims.

We have considered all of Maximus's arguments concerning the grant of summary judgment of noninfringement on the Unrestricted Claims with respect to Tubular's bolts-in-place theories, and we find them unpersuasive.

III. CONCLUSION

We hold that the district court correctly construed parallel and *affirm* the district court's related grant of Maximus's motion for summary judgment of noninfringement of claims 18–20 of the '224 patent, claims 1–4, 6–12, and 15 of the '009 patent, and claims 16–20 and 24–26 of the '915 patent. We also hold that the district court correctly construed unrestricted but *vacate* the district court's grant of Maximus's motion for summary judgment of noninfringement of claims 1–5, 9–12, and 15 of the '224 patent. We *remand* to the district court for further proceedings consistent with this opinion.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

Costs

No costs.

Case: 21-2319 Document: 51 Page: 22 Filed: 06/28/2023

NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

TUBULAR ROLLERS, LLC, ROLLING TOOL, INC., H. LESTER WALD,

Plaintiffs-Appellants

 \mathbf{v} .

MAXIMUS OILFIELD PRODUCTS, LLC,

Defendant-Appellee

NABORS DRILLING TECHNOLOGIES USA, INC.,

Defendant

2021-2319

Appeal from the United States District Court for the Southern District of Texas in No. 4:19-cv-03113, Judge Andrew S. Hanen.

REYNA, Circuit Judge, dissenting-in-part.

I agree with the majority opinion except for Part II.B. The issue in Part II.B is whether the term "parallel" in the Parallel Claims—which require the claimed wheel section and handle section to have longitudinal axes that are "parallel"—should be construed in a way that excludes "collinear" axes (axes that are "lying on or passing through the same straight line"). Claim terms are given their ordinary

Case: 21-2319 Document: 51 Page: 23 Filed: 06/28/2023

2 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

and customary meaning as understood by skilled artisans when read in the context of the claims, the specification, and the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313–17 (Fed. Cir. 2005) (en banc). Because I believe that a skilled artisan reading the claims in light of the intrinsic evidence would clearly understand that "collinear" axes are a subset of "parallel" axes, I would reverse the district court's claim construction and vacate its grant of summary judgment of noninfringement based on that construction. *See Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 909–10 (Fed. Cir. 2005) (vacating district court's grant of summary judgment of noninfringement because it was based on an incorrect claim construction). I respectfully dissent-in-part.

A. Intrinsic Evidence

"Claim construction begins with the language of the claim." *Power Integrations, Inc. v. Fairchild Semiconductor Int'l., Inc.*, 711 F.3d 1348, 1360 (Fed. Cir. 2013). In analyzing the claim language, we look to "[d]ifferences among claims," as they can be "a useful guide in understanding the meaning of particular claim terms." *Phillips*, 415 F.3d at 1314. And so they are here.

Both the '009 and '915 patents, for example, include independent claims that require the claimed longitudinal axes to be "parallel" and dependent claims that further require those axes to be "collinear." See, e.g., '915 patent claims 16 (independent), 19 (dependent), and 26 (dependent); '009 patent claims 1 (independent), 3 (dependent) and 12 (dependent). Claims 16 and 26 of the '915 patent, for instance, recite in relevant part:

16. A tool . . . comprising:

a shaft having a handle section with a longitudinal axis and a wheel section with a longitudinal axis, wherein the Document: 51 Page: 24 Filed: 06/28/2023

3

longitudinal axes of the handle section and the wheel section are *parallel*

26. The tool of claim 16 wherein the longitudinal axes of the handle section and the wheel section are *collinear*.

'915 patent claim 16 and 26 (emphasis added).

Case: 21-2319

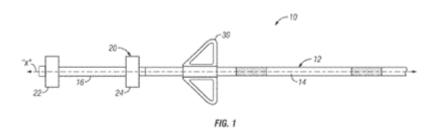
"The structure of the [se] claims is enlightening." Littelfuse, Inc. v. Mersen USA EP Corp., 29 F.4th 1376, 1379 (Fed. Cir. 2022). It strongly suggests that "parallel" axes include "collinear" axes. That is because, "[b]y definition, an independent claim is broader than a claim that depends from it," and "so if a dependent claim reads on a particular embodiment of the claimed invention, the corresponding independent claim must cover that embodiment as well." Id. at 1380. "Otherwise, the dependent claims would have no scope and thus be meaningless." Id. Because the dependent claim above reads on an embodiment in which the axes are "collinear," the independent claim-which requires the axes to be "parallel"—must also cover that embodiment. The recitation of collinear axes in the dependent claims is therefore presumptive evidence that the independent "parallel" claims also cover collinear axes. See id. 1

The written description further bolsters that conclusion. It twice discusses "parallel" and "collinear" axes. In describing Figure 1 (a first embodiment), it states that "[e]ach of the handle section 24 and the wheel section 16 has a longitudinal axis" and that "[p]referably these axes

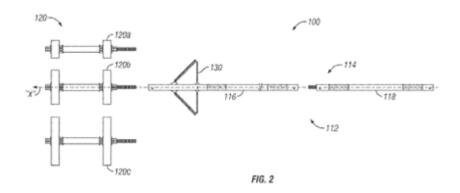
¹ Because Maximus does not dispute that "parallel" has the same meaning across all patents, we can apply claim differentiation in any patent across all patents. *See Bio-Rad Labs.*, *Inc. v. Int'l Trade Comm'n.*, 998 F.3d 1320, 1334 (Fed. Cir. 2021).

4 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

are *parallel* and *most preferably* these axes are *collinear* as is axis 'X' in FIG. 1":



'224 patent at Fig. 1 & 3:3–6 (emphasis added). And in describing Figure 2 (a second embodiment), the specification states that "the longitudinal axis of the wheel assembly 120, the main handle 116 and the extension handle 118 all are *collinear* with each other, or *at least parallel*":



Id. at Fig. 2 & 3:51–54 (emphasis added).

The structure of these statements mirrors the structure of the independent/dependent claims. The written description consequently reinforces that "parallel" is broader than—yet includes—"collinear."

The majority reaches the opposite conclusion, finding that "the overall specification supports a construction of parallel that excludes collinear." Maj. Op. 14. That is because, the majority explains, the written description's use of the disjunctive "or" in the phrase "are collinear with each other, or at least parallel" to describe the second embodiment shows that collinear is an "alternative[]" to—not a "subset of"—parallel. Id. at 11. But "or" does not always convey distinct alternatives. As the Supreme Court has noted, for example, "the word 'or' may be used to indicate 'the synonymous, equivalent, or substitutive character of two words or phrases." Hawaiian Airlines, Inc. v. Norris, 512 U.S. 246, 255 (1994) (citation omitted). And when "at least" is combined with "or," as it is here, it suggests an overlapping subset relationship. Cf. 1 Matthews, Annotated Patent Digest § 4:88 (2023) ("The term 'at least' can be construed to mean 'at a minimum."). The written description's statement that the axes in the second embodiment "are collinear... or at least parallel" thus implies that parallel includes collinear.

Even if the "or at least" could be read as the majority suggests, though, I disagree that it overcomes the presumption that arises from the independent/dependent claim structure. For one thing, as the majority acknowledges, the written description's discussion of the first embodiment "can be read to interpret parallel as including collinear." Maj. Op. 11 (emphasis added). So the use of "or at least" for one of the embodiments does not show that the written description has "dictated" that parallel excludes collinear. Id. at 14 (quoting Howmedica Osteonics Corp. v. Zimmer, Inc., 822 F.3d 1312, 1323 (Fed. Cir. 2016) ("[C]laim differentiation is a rebuttable presumption that may be overcome by a contrary construction dictated by the written description or prosecution history." (emphasis added))). That is especially so considering that it is far more natural to read the written description in harmony with the claim structure and its accompanying differentiation presumption.

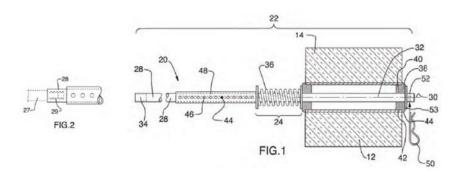
A construction that excludes collinear, moreover, renders the dependent claims not just "meaningless,"

6 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

Littelfuse, 29 F.4th at 1380, but in direct conflict with the independent claims. It thus leaves the claims potentially invalid as indefinite. We have cautioned against adopting a construction that would render the subject claims invalid. See Omega Engineering, Inc, v. Raytek Corp., 334 F.3d 1314, 1334–35 n.6 (Fed. Cir. 2003) ("[T]he district court's claim construction inevitably required the invalidation of claims 33 and 41 [for indefiniteness], in contradiction to the canon that courts should attempt to construe claims to preserve their validity."). And it is appropriate to construe the claims to preserve their validity when, as here, that construction "is practicable, is based on sound claim construction principles, and does not revise or ignore the explicit language of the claims." Generation II Orthotics Inc v. Medical Tech. Inc., 263 F.3d 1356, 1365 (Fed. Cir. 2001) (internal quotation marks omitted). Simply stated: "[W]e must not interpret an independent claim in a way that is inconsistent with a claim which depends from it." Wright Med. Tech., Inc. v. Osteonics Corp., 122 F.3d 1440, 1445 (Fed. Cir. 1997) (emphasis added).

Finally, the prosecution history supports that parallel includes collinear. During the prosecution of the '009 patent, the examiner rejected application claims requiring the wheel section and the handle section to have longitudinal axes that were "parallel," as being anticipated by two prior art references—U.S. Pat. Nos. 7,401,449 ("Watson") and 4,102,513 ("Guard"). J.A. 644–650 (pending claims); J.A. 632 (examiner's rejections). The examiner relied on embodiments from Watson and Guard in which the alleged sections had collinear axes. For Watson, the examiner explained that it "shows a tool capable of moving certain sized racked tubulars comprising a shaft (28), two wheels (38), and an extension handle section (27) threadedly connected to the main handle." J.A. 632 (emphasis removed). Figures 1 and 2 of Watson show that the longitudinal axes of handle section (27), which is attached to shaft (28), and wheels (38) are "collinear":

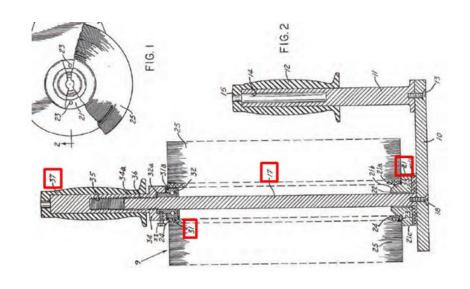
TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

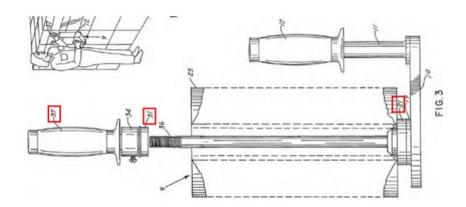


J.A. 1019.

For Guard, the examiner explained that "Guard shows a tool capable of engaging and moving certain sized pipes comprising a shaft (17) including a stop (34), a handle (37), and two wheels (21, 31)." J.A. 632 (emphasis removed). Figures 2 and 3 of Guard (shown rotated 90° and annotated with red boxes to highlight the components) show that the handle (37), the shaft (17), and the wheels (21, 31) had "collinear" longitudinal axes:

8 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC





J.A. 1043-1044.

To reject a claim for anticipation, the examiner must find that each claim element is in the prior art reference. See Verdegaal Bros., Inc. v. Union Oil Co. of Calif., 814 F.2d 628, 631 (Fed. Cir. 1987). Because the examiner rejected claims requiring "parallel" axes as anticipated, it necessarily understood the "parallel" claims to encompass (Watson's and Guard's) collinear axes. Or else it could not have made the rejection. And in response, the applicants did not argue that either reference failed to disclose the claimed

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

"parallel" axes. J.A. 612–620 (amended claims and applicant remarks). This shows that both the examiner and the applicants understood that "parallel" axes include—not exclude—collinear axes. Cf. Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349, 1358 (Fed. Cir. 2012) (rejecting a narrow construction where "during prosecution, the examiner rejected claims . . . over prior art mower decks that would be excluded from [the] proposed construction" and the patentee "did not argue that the cited references did not disclose a 'rotary cutter deck"); Ventana Med. Sys., Inc. v. Biogenex Labs., Inc., 473 F.3d 1173, 1182-83 (Fed. Cir. 2006) (refusing to narrowly construe "dispensing" as "direct dispensing" where examiner's statements showed that the examiner did not consider the term to be so limited and "the inventors did not rely on 'direct dispensing' as a distinction between the claims at issue in this case and the prior art").2

The majority finds this prosecution history evidence inconclusive. Maj. Op. 11–13. That is because, it says, the examiner never made an "express determination" that Watson's and Guard's axes are collinear and neither the examiner nor the applicants "explicitly" said that they understood collinear to be parallel. Maj. Op. 12. It is clear that the embodiments on which the examiner relied can only be understood to show collinear axes. The examiner's anticipation rejection thus speaks for itself. And even if the prosecution history were neutral, the end result would be the same—parallel must be construed to include collinear based on the claim differentiation presumption.

The '224 patent examiner also rejected claims that required "parallel" axes as being anticipated by Guard. J.A. 483–487 (pending claims); J.A. 457–460 (examiner's rejections); J.A. 437–450 (amended claims and applicant remarks).

10 TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC

In short, the intrinsic evidence all points in the same direction: collinear is a subset of parallel. Indeed, the claim structure supports that conclusion; the written description's mirroring of the claim structure supports that conclusion; and the examiner's rejection of claims requiring "parallel" axes as anticipated by prior art having "collinear" axes supports that conclusion.

B. Extrinsic Evidence

Once the intrinsic evidence clearly points in one direction, "there is no reason to resort to extrinsic evidence." Seabed Geosolutions (US) Inc. v. Magseis FF LLC, 8 F.4th 1285, 1287 (Fed. Cir. 2021). Despite the clear path revealed by the intrinsic evidence, the majority relies on certain dictionary definitions to support its construction. Maj. Op. 15–16 (citing Helmsderfer v. Bobrick Washroom Equip., Inc., 527 F.3d 1379 (Fed. Cir. 2008)). I disagree with that approach.

To be sure, as in *Helmsderfer*, it is proper for the court to look to dictionaries where "the intrinsic evidence is silent as to the plain meaning of a term." 527 F.3d at 1382. But as explained above, the intrinsic evidence is not silent in this case.

Nor do I agree with the majority that all the definitions support excluding collinear from parallel. At least Merriam-Webster's "1b" definition—"everywhere equally distant"—aligns with the intrinsic record. See, e.g., Beckson Marine, Inc. v. NFM, Inc., 292 F.3d 718, 723–25 (Fed. Cir. 2002) (rejecting narrow construction of term where one dictionary narrowly defined a term but another more broadly defined it and the broader definition better aligned with the intrinsic evidence). The majority disagrees, explaining that there must be some distance between the lines. Maj. Op. 16. But it is unclear why the distance cannot be zero. While dictionary definitions have an important role in claim construction, the role is minimized where resorting

TUBULAR ROLLERS, LLC v. MAXIMUS OILFIELD PRODUCTS, LLC 11

to definitions amounts to little more than a battle of dictionaries.

Finally, even if all the dictionary definitions did support excluding collinear from parallel, "the question is not whether there is a settled ordinary meaning of the terms in some abstract sense of the words"; it is whether the terms have a meaning "in the context of the patent." Eon Corp. IP Holdings v. Silver Spring Networks, 815 F.3d 1314, 1321 (Fed. Cir. 2016) (internal quotation marks and citation omitted). Here, parallel in the context of the patents includes collinear. Perhaps a mathematician analyzing "parallel" in the abstract would conclude that parallel axes are "parallel" only until the precise moment when the distance between them goes to zero and they become "collinear." But there is no evidence that a skilled artisan reading patents on a tool for rolling oil and gas drilling pipes at an oil well—would impose such "strict adherence to an abstract geometric concept." Int'l E-Z Up, Inc. v. Caravan Canopy Int'l, Inc, No. 01-6530, 2002 WL 34536685, *3-4 (C.D. Cal. May 14, 2002) (explaining that a person of ordinary skill "in the art of collapsible tent canopies would not interpret 'parallel' in the '001 patent with strict adherence to an abstract geometric concept"). We should avoid creating a "hyper-technical" construction. See Lisle Corp. v. A.J. Mfg. Co., 398 F.3d 1306, 1314 (Fed. Cir. 2005).

The district court erred in construing "parallel" to exclude "collinear" and based its noninfringement finding on that construction. I would thus reverse the construction, vacate the grant of summary judgment on the Parallel Claims, and remand for the district court to adopt a construction of "parallel" that covers collinear axes.