

**United States Court of Appeals  
for the Federal Circuit**

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**AMERICAN PILEDIVING EQUIPMENT, INC.,**  
*Plaintiff-Appellant,*

v.

**GEOQUIP, INC.,**  
*Defendant-Appellee.*

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2010-1283

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Appeal from the United States District Court for the  
Eastern District of Virginia in case No. 08-CV-0547,  
Judge Rebecca Beach Smith.

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**AMERICAN PILEDIVING EQUIPMENT, INC.,**  
*Plaintiff-Appellant,*

v.

**BAY MACHINERY CORPORATION,**  
*Defendant-Appellee.*

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2010-1314

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Appeal from the United States District Court for the Northern District of California in case No. 08-CV-1934, Judge Phyllis J. Hamilton.

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Decided: March 21, 2011

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CRAIG J. MADSON, Madson IP, P.C., of Farmington, Utah, argued for plaintiff-appellant. Of counsel on the brief was STEPHEN E. NOONA, Kaufman & Canoles, P.C., of Norfolk, Virginia.

PETER C. KNOPS, Shook, Hardy & Bacon, L.L.P., of Kansas City, Missouri, argued for defendants-appellees Geoquip, Inc. and Bay Machinery Corporation. With him on the brief were KENNETH P. KULA; and ROBERT H. RECKERS, of Houston, Texas. Of counsel on the brief was RICHARD H. OTTINGER, Vandeventer Black, L.L.P., of Norfolk, Virginia.

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Before BRYSON, GAJARSA, and LINN, *Circuit Judges*.

LINN, *Circuit Judge*.

This consolidated appeal concerns claim construction and infringement issues common to seven separate lawsuits filed by American Piledriving Equipment, Inc. (“American Piledriving”) in different district courts across the United States. In each suit, American Piledriving claims that the defendants—a manufacturer of construction equipment and its distributors—have either made or sold certain pile driving devices that infringe United States Patent No. 5,355,964 (“the ’964 Patent”). Whether the accused devices infringe the ’964 Patent largely turns in each action on the construction of three claim terms.

Of the district courts that have considered those terms, no two have construed all three terms the same way.<sup>1</sup>

In the two suits at issue here, the district courts for the Eastern District of Virginia and the Northern District of California each granted summary judgment of noninfringement in favor of their respective defendants, despite adopting different constructions of two key claim terms. *Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 696 F. Supp. 2d 582 (E.D. Va. 2010); *Am. Piledriving Equip., Inc. v. Bay Mach. Corp.*, No. 08-1934, 2010 U.S. Dist. LEXIS 22949 (N.D. Cal. Feb. 25, 2010). American Piledriving appeals both of these decisions. For the reasons discussed below, this court affirms the judgment of the District Court for the Eastern District of Virginia. This court affirms in part, reverses in part, and remands the judgment of the District Court for the Northern District of California for further proceedings consistent with this opinion.

## I. BACKGROUND

### A. The '964 Patent

The '964 Patent relates to counterweights for so-called “vibratory” pile drivers. As the name suggests, vibratory pile drivers rely on vibration to drive piles (support col-

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<sup>1</sup> See *Am. Piledriving Equip., Inc. v. Conmaco/Rector, L.P.*, No. 08-3826 (E.D. La. Dec. 23, 2009) (order staying proceedings); *Am. Piledriving Equip., Inc. v. Pile Equip., Inc.*, No. 08-00659 (M.D. Fla. Mar. 12, 2010) (same); *Am. Piledriving Equip., Inc. v. Hydraulic Power Sys., Inc.*, No. 08-00537 (W.D. Wash. Mar. 12, 2010) (same); *Am. Piledriving Equip., Inc. v. J & G Sales, Inc.*, No. 08-01253 (S.D. Tex. Mar. 15, 2010) (same); *Am. Piledriving Equip., Inc. v. Equip. Corp. of Am.*, No. 08-00895 (W.D. Pa. Apr. 12, 2010) (same).

umns usually made of timber, steel, or concrete) into the ground. As shown in Figures 1 and 2, an exemplary vibratory pile driver 10 includes a vibratory assembly 34 that is connected to a pile 22.

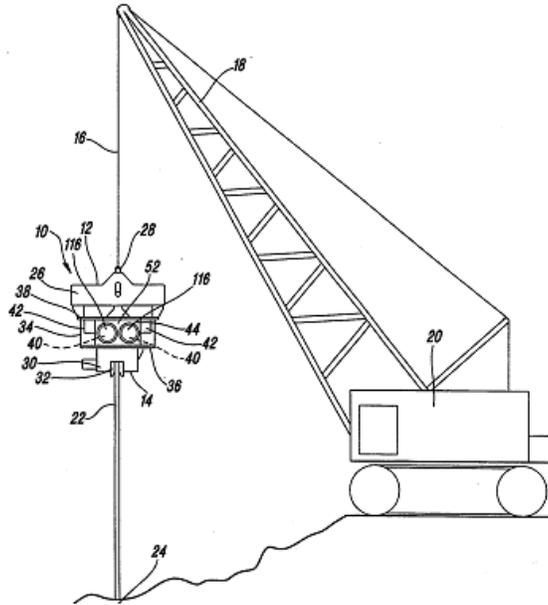


Figure 1

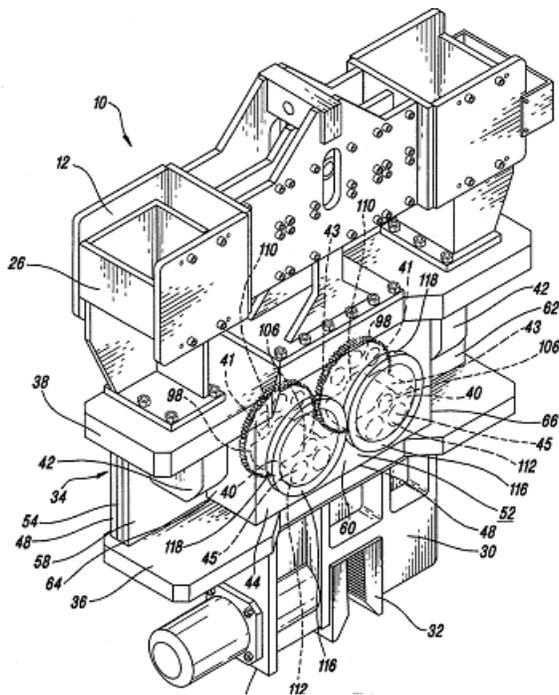


Figure 2

The vibratory assembly 34 houses matching pairs of large, cylindrical counterweights 40 placed side by side with their rotational axes in the same horizontal plane. Each counterweight 40 is “eccentrically weighted,” meaning that its weight is unevenly distributed around its body such that the center of gravity of the counterweight 40 is moved radially outward from its rotational axis. By rapidly rotating the counterweights 40 in opposite directions, the pile driver 10 generates vertical vibratory forces that are transmitted through the assembly 34 to the pile 22, forcing the pile 22 into the earth 24. The alignment of the counterweights 40 cancels any horizontal vibratory forces created by their rotation.

The counterweights used in early vibratory pile drivers consisted of a weight bolted to a portion of a cylindrical gear. Because the bolts connecting the weight to the gear sometimes broke when the counterweight was ro-

tated, these two-piece counterweights were often replaced by “cast, one-piece, solid” counterweights. These one-piece counterweights, however, had a serious drawback—they lacked sufficient mass to generate the necessary vibration. To increase the mass of the counterweights, holes were bored into the eccentric weight portion and filled with molten lead, which was allowed to solidify. But these lead-filled counterweights still suffered from three significant disadvantages: (1) the counterweights produced insufficient vibration; (2) the lead inserts melted from the heat generated by friction during operation, unbalancing the counterweight; and (3) the lead inserts created hazardous waste.

The '964 Patent discloses a vibratory assembly that houses counterweights designed to address the failings of prior art counterweights. As shown in Figure 3, exemplary counterweights **40** consist of an eccentric weight portion **43** “integral” to a cylindrical gear portion **41**. Each eccentric weight portion **43** contains an “insert-receiving area” formed to securely receive a solid insert member **45**. The solid insert member **45** and the counterweight **40** are formed from different metals, the metal for the insert member **45** having a specific gravity greater than the metal for the counterweight **40** and having a melting point higher than 328°C, the melting point of lead. In the preferred embodiment, the counterweight **40** is made of steel and the insert **45** is made of tungsten.

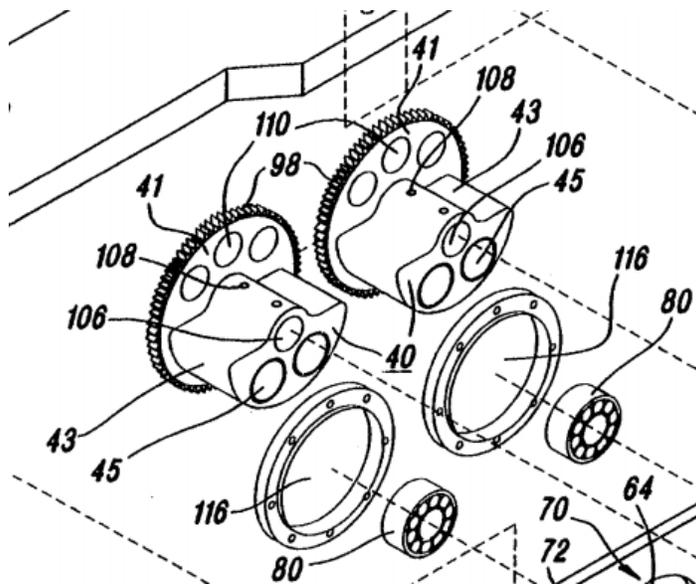


Figure 3

B. District Court Proceedings

The lawsuits filed by American Piledriving in the Eastern District of Virginia and the Northern District of California are largely the same. American Piledriving alleged in each suit that the defendant distributor—respectively, Geoquip, Inc. (“Geoquip”) and Bay Machinery Corporation (“Bay Machinery”) (collectively “the Defendants”)—had infringed certain claims of the ’964 Patent by selling Model 250 and Model 500 vibratory pile drivers manufactured by Hydraulic Power Systems, Inc. The lawsuits differed, however, in one key respect: American Piledriving alleged in the California action that Bay Machinery had also sold an earlier, different version of the Model 500 pile driver known as the Early Model 500. The asserted claims in both cases include four independent claims: 1, 6, 11, and 16. Also asserted in each action are claims 2, 3, and 5 dependent from claim 1; claims 7-10 dependent from claim 6; claims 12-14 dependent from claim 11; and claims 17 and 18 dependent from claim 16.

Claims 1, 6, and 11 differ inconsequentially for purposes of this appeal and claim 1 is representative. Claim 1 reads as follows (disputed terms emphasized):

1. A vibratory assembly for imparting a vibratory force to a pile, comprising:

a housing having at least one counterweight receiving means;

a counterweight rotatably carried in said receiving means for rotation about a rotational axis, said counterweight having *a cylindrical gear portion and an eccentric weight portion integral with said cylindrical gear portion, said eccentric weight portion having at least one insert-receiving area formed therein*, said counterweight being made of a first metal;

a solid insert member securely positioned in one of said at least one insert-receiving areas said solid insert member being made of a second metal having a specific gravity greater than the specific gravity of said first metal, and a melting point temperature of 328°C. or greater; and

at least one driving means operatively connected to said counterweight and adapted to rotate said counterweight about its rotational axis.

'964 Patent col.9 ll.33-53 (emphasis added).

Claim 16 is similar to claim 1, but instead of claiming “an eccentric weight portion *integral* with said cylindrical gear portion” it recites “an eccentric weight portion *connected to* said cylindrical gear portion.” *See id.* col.9 ll.37-44, col.11 ll.13-18 (emphasis added).

In both actions, the parties disputed the meaning of the terms “eccentric weight portion,” “integral,” “insert-receiving area,” and “connected to.” Although the parties in the California action also contested the construction of the term “cylindrical gear portion,” the parties in the Virginia suit stipulated to a construction of the term. The district courts adopted the same constructions of the terms “cylindrical gear portion,” “integral,” and “connected to” but reached different constructions of the “eccentric weight portion” and “insert-receiving area” terms.

In both suits, the Defendants each moved for summary judgment of noninfringement and invalidity, and American Piledriving moved for summary judgment of infringement. Based on their claim constructions, each district court denied American Piledriving’s motion and granted summary judgment of noninfringement, concluding that the accused devices could not meet the “integral” and “insert-receiving area” limitations. The invalidity contentions were then dismissed as moot in the Virginia action and dismissed without prejudice in the California action. A final judgment was entered in each case. American Piledriving timely appealed both decisions, and this court has jurisdiction under 28 U.S.C. § 1295(a)(1).

## II. DISCUSSION

This court reviews the grant of summary judgment de novo, applying the same legal standards as the district court. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1345 (Fed. Cir. 2007). Summary judgment is appropriate where there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c).

American Piledriving argues on appeal that the district courts misconstrued the “eccentric weight portion,”

“integral,” and “insert-receiving area” terms and that each grant of summary judgment of noninfringement should be reversed. It also contends that even if this court upholds the claim constructions adopted by the district courts, summary judgment was still improperly granted. This court considers each argument in turn.

### A. Claim Construction

It is well settled that the role of a district court in construing claims is not to redefine claim recitations or to read limitations into the claims to obviate factual questions of infringement and validity but rather to give meaning to the limitations actually contained in the claims, informed by the written description, the prosecution history if in evidence, and any relevant extrinsic evidence. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). In the course of construing the claims in this case, the Virginia district court carefully avoided redefining the claims and reading limitations into the claims from the written description. The California district court, however, inappropriately added several limitations not contained in the inventor’s claimed definition of the scope of his invention. This disparate treatment of the same issues before two competent and capable district courts is thus instructive.

#### 1. “Eccentric Weight Portion”

The term “eccentric weight portion” appears in independent claims 1, 6, 11, and 16. The district courts construed the term as follows:

Virginia	California
“That portion of the counterweight that	“The bottom portion of the counterweight, which extends

extends either forward or rearward from the front or back face of the gear portion such that it shifts the center of gravity radially outward from the gear's rotational axis."	forward from the front face of the gear portion, containing more weight than the top portion due to its larger mass, including at least one insert-receiving area formed therein to receive at least one solid tungsten rod."
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American Piledriving argues that both district courts erred by importing structural limitations from a preferred embodiment of the invention into their respective constructions. It contends that, although not explicitly recited in their constructions, each court erroneously required that the “eccentric weight portion” be separate and distinct from the “cylindrical gear portion.” American Piledriving asserts that one of skill in the art would have understood that the term should be defined functionally and not be structurally limited, as the specification makes repeated reference to the purpose of the “eccentric weight portion”: creating an uneven weight distribution around the body of the gear. American Piledriving argues that, when properly interpreted, the term includes any unevenly distributed weight within the counterweight.

The Defendants contend that neither court improperly read limitations from the preferred embodiment into their respective construction of “eccentric weight portion.” They assert that both courts recognized that the “eccentric weight portion” and the “cylindrical gear portion” are distinct parts of a counterweight.

This court agrees with American Piledriving that the California court improperly imported limitations from the specification into its construction of “eccentric weight portion,” but concludes that the Virginia court correctly construed the term. This court reviews claim construction de novo. *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1451

(Fed. Cir. 1998) (en banc). Claim terms are generally given their “ordinary and customary meaning,” namely “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1313. To determine the ordinary and customary meaning of a claim term, courts turn to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” *Id.* at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). Those sources include “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.* (quoting *Innova*, 381 F.3d at 1116). Because neither party provided cogent extrinsic evidence, this court looks only to the intrinsic evidence—the claims, specification, and prosecution history.

#### i. Claims

We begin our analysis with the language of the claims, as it provides “substantial guidance as to the meaning of particular claim terms.” *Id.* (citing *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The claims do not explicitly define the term “eccentric weight portion,” but the language does suggest that the term should not be construed as broadly as proposed by American Pilediving. For example, claim 16 recites “an eccentric weight portion *connected to* said cylindrical gear portion.” ’964 Patent col.11 ll.13-14 (emphasis added). If, as suggested by American Pilediving, the term “eccentric weight portion” encompasses any portion of the counterweight that contributes to the uneven weight distribution around the body of the gear, the term would include the gear itself, as the gear is

partly responsible for the uneven weight distribution of the counterweight. *See id.* col.5 ll.51-60 (explaining that the holes in the gear “effectively reduce the amount of metal in the top portion [of the gear], thereby moving the center of gravity of the counterweight lower or radially away from the rotational axis”) (reference numbers omitted). This interpretation cannot be correct as it would essentially require that the structure recited in claim 16 connect to itself.

Both district courts recognized—and American Pilediving does not dispute—that the term “eccentric weight portion” is used consistently throughout the claims of the ’964 Patent. Nothing suggests that the term has different meanings in different claims. Where a claim term is used consistently throughout the claims, “the usage of [the] term in one claim can often illuminate the meaning of the same term in other claims.” *Phillips*, 415 F.3d at 1314 (citation omitted). Thus, the meaning of the term “eccentric weight portion” apparent from claim 16 is equally applicable to independent claims 1, 6, and 11 as well.

## ii. Specification

We turn next to the specification as it “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Id.* at 1315 (citation omitted). Both district courts relied heavily on the following passage in the specification to reach their respective structural constructions of “eccentric weight portion”:

The eccentric weight portion of the counterweight, which is formed integral with the gear portion, *extends forward from the front face of the gear portion*. The gear portion has a weight distribution with less weight provided by a top portion and

more weight provided by a bottom portion as a result of the eccentric weight portion being connected thereto.

'964 Patent col.5 ll.20-31 (emphasis added and internal reference numbers omitted). American Pilediving argues that this portion of the specification describes merely a preferred embodiment of the invention and that the structural descriptions of the gear portion and the eccentric weight portion are nothing more than exemplary of the structures capable of providing the needed weight imbalance. But the consistent reference throughout the specification to the “eccentric weight portion” as structure extending from the face of the gear makes it apparent that it relates to the invention as a whole, not just the preferred embodiment as contended by American Pilediving.

This court has indicated that a statement in a specification that describes the invention as a whole can support a limiting construction of a claim term. *Cf. C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004). That is especially true where, as here, other statements and illustrations in the patent are consistent with the limiting description. The specification repeatedly uses the words “thereto” or “therewith” to describe the relationship between the “cylindrical gear portion” and the “eccentric weight portion.” *See* '964 Patent Abstract; col.5 ll.25-27. These words suggest a structural construction of “eccentric weight portion,” as they describe the “eccentric weight portion” according to its location relative to other components, not the function it performs. The specification also describes balancing the “eccentric weight portion” such that it hangs at its lowest point. *Id.* col.9 ll.11-17. This description of the “eccentric weight portion” further suggests a structural rather than a functional construction. Moreover, as noted above, the specification explains that apertures in the top of the gear

contribute to the uneven weight distribution in the bottom of the counterweight, yet the specification makes no mention of this weight being part of the “eccentric weight portion.” Finally, the relevant figures each show the “eccentric weight portion” extending from the face of the gear. *Id.* Figures 2, 3A, 3B, and 4.

### iii. Prosecution History

American Piledriving contends that the prosecution history supports defining “eccentric weight portion” in an entirely functional manner. American Piledriving argues that during reexamination it consistently treated the “eccentric weight portion” generally as the uneven distribution of weight that moves the center of gravity away from the rotational axis. But it also stated that “an ‘eccentric weight portion’ is a weighted portion or section that is situated to one side with reference to a center [of the counterweight].” Reply to Office Action of May 12, 2006, at 4 (June 6, 2006). Describing the “eccentric weight portion” according to its placement in relation to the center of the counterweight is entirely consistent with the construction of the district courts as structure extending from the gear portion.

\* \* \*

While both district courts indicated that the term should be defined as extending from the face of the gear, the California court also required that the “eccentric weight portion” extend from a particular portion of the gear, extend in a specific direction, and include a receiving area formed to receive a tungsten rod. This court agrees with American Piledriving that nothing in the specification compels the reading of these additional limitations into the construction of “eccentric weight portion.”

Based on the foregoing, this court agrees with the construction of the term “eccentric weight portion” made by the District Court for the Eastern District of Virginia: “that portion of the counterweight that extends either forward or rearward from the front or back face of the gear portion such that it shifts the center of gravity radially outward from the gear’s rotational axis.”

## 2. “Integral”

The term “integral” appears in independent claims 1, 6, and 11 but not in independent claim 16. Each district court construed “integral” to mean “formed or cast of one piece.” American Piledriving argues that this construction improperly deviates from the plain and ordinary meaning of “integral.” It contends that to the extent this construction is based on a supposed prosecution disclaimer, nothing in the prosecution history demonstrates the necessary clear and unmistakable disavowal of claim scope. Moreover, American Piledriving asserts that the construction creates an irreconcilable conflict between claims 16 and 19.

The Defendants contend that rather than presenting a supposed “irreconcilable conflict,” claims 16 and 19 provide strong evidence in support of the construction reached by the district courts. Moreover, they contend that American Piledriving limited the term to “formed or cast as one-piece” during reexamination.

This court agrees with the Defendants. We focus our analysis on the evidence relied upon by the parties: the claims and the prosecution history.

i. Claims

As noted by both district courts, independent claim 16 recites in relevant part “an eccentric weight portion *connected to* said cylindrical gear portion.” ’964 Patent col.11 ll.13-16 (emphasis added). By contrast, claim 19, which depends directly from claim 16, recites “said eccentric weight portion is *integral* with said cylindrical gear portion.” *Id.* col.11 ll.30-32 (emphasis added). Each court construed the term “connected to” in claim 16 to mean “joined together, united, or linked” and neither party disputes this construction on appeal. Relying on the doctrine of claim differentiation, each court reasoned that the term “integral” must be narrower than “connected to” and must therefore refer to a single-piece counterweight.

American Piledriving disagrees. It contends that because claim 16 encompasses a two-piece counterweight, claim 19 must also encompass a two-piece counterweight. In light of this, American Piledriving argues that “integral” cannot mean “formed or cast of one piece” as construed by the district courts because that would require the counterweight described in claim 19 to be both “two piece” and “one piece” at the same time.

This argument is without merit. Claim 16 encompasses “united,” one-piece counterweights as well as counterweights consisting of two pieces that are “joined together.” It does not follow that because claim 16 encompasses two-piece counterweights its dependent claims must also be broad enough to encompass such counterweights. Indeed, where, as here, the claims describe the same relationship using different terms, the assumption is that the term in the dependent claim has a narrower scope. *See* 35 U.S.C. § 112, ¶ 4 (“Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.”);

*Comark Comm'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (“There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.”). American Piledriving has not pointed to anything in the record that suggests this presumption is not applicable here. Given the undisputed construction of “connected to,” this court agrees with both district courts that claims 16 and 19 inform that “integral” as used in independent claims 1, 6, and 11 means “formed or cast of one piece.” See *Phillips*, 415 F.3d at 1314 (“[T]he usage of [the] term in one claim can often illuminate the meaning of the same term in other claims.”).

## ii. Prosecution History

The prosecution history removes all doubt that one of ordinary skill in the art would have understood the term “integral” to mean “formed or cast of one piece.” During reexamination, American Piledriving attempted to distinguish a prior art reference by arguing this very point:

Claim 1, 6, and 11 are further distinguished . . . because such claims further recite that the eccentric weight portion be “integral with said cylindrical gear portion” . . . . In other words, the claims recite that the counterweight has a “cylindrical gear portion and an eccentric weight portion” and that these two components are “*integral*”—*i.e.*, they are simply components of the “*one-piece*” counterweight.

Reply to Office Action of May 12, 2006, at 6 (June 6, 2006) (emphasis added). American Piledriving nevertheless argues that it did not clearly and unmistakably disavow the construction of “integral” it urges on appeal. It points out that it did not amend its claims and made multiple arguments to overcome the asserted prior art reference. American Piledriving contends that the statement was unnecessary to overcome the reference and that the examiner explicitly disagreed with it.

“[W]e have made clear . . . [that] an applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007). Moreover, regardless of whether the examiner agreed with American Piledriving’s arguments concerning “integral,” its statements still inform the proper construction of the term. *See Seachange Int’l, Inc. v. C-Cor Inc.*, 413 F.3d 1361, 1374 (Fed. Cir. 2005) (“An applicant’s argument made during prosecution may lead to a disavowal of claim scope even if the Examiner did not rely on the argument.”); *Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (“We have stated on numerous occasions that a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation.”). American Piledriving unambiguously argued that “integral” meant “one-piece” during reexamination and cannot attempt to distance itself from the disavowal of broader claim scope.

\* \* \*

Because the claims and the prosecution history establish that one of ordinary skill in the art at the time of the invention would have understood the term “integral” to

mean “formed or cast of one piece,” this court concludes that neither district court erred in its construction of this term.

### 3. “Insert-Receiving Area”

The term “insert-receiving area” is found in independent claims 1, 6, 11, and 16. Each court construed this term as follows:

Virginia	California
“A bore located, at least in part, within the eccentric weight portion that is shaped to hold securely a solid insert member.”	“A bore formed in the eccentric weight portion of the counterweight, which extends fully through the gear portion and fully through the eccentric weight portion of the counterweight, capable of receiving a solid tungsten rod.”

American Piledriving does not dispute the construction of “insert-receiving area” adopted by the Virginia court. It does, however, argue that the California court erred by requiring that the bore extend “fully through” both the “eccentric weight portion” and the “gear portion.” It again contends that the court improperly imported a limitation from the preferred embodiment into the claims. This court agrees.

The claims recite that “said eccentric weight portion” has “at least one insert-receiving area formed therein.” *See, e.g.*, ’964 Patent col.9 ll.39-43. Nothing in the independent claims requires or specifies that the insert-receiving area extend fully through either the eccentric weight or the gear portion. Although the specification states that “[t]he bottom portion of the counterweight is cast having insert receiving areas or bores substantially

parallel to the center bore and extending fully through the gear portion and fully through the eccentric weight portion,” *see id.* col.5 ll.61-68, the intrinsic record is devoid of anything to suggest or indicate that the bore must *always* extend fully through either portion. This court agrees with the observation of the Virginia court that the claims and the specification read together inform that the “insert-receiving area” has three key components: (1) it is shaped to receive an insert; (2) it is at least partially located in the “eccentric weight portion”; and (3) it may extend into the cylindrical gear. Accordingly, this court adopts the construction of “insert-receiving area” reached by the Virginia court: “A bore located, at least in part, within the eccentric weight portion that is shaped to hold securely a solid insert member.”

\* \* \*

In summary, this court affirms the claim construction of the Virginia court in its entirety, and reverses the construction of the California court to the extent that it differs from the Virginia court’s construction. For convenience, the constructions that we adopt are set out in the following table:

Term	Construction
“Eccentric Weight Portion”	“That portion of the counterweight that extends either forward or rearward from the front or back face of the gear portion such that it shifts the center of gravity radially outward from the gear's rotational axis.”
“Integral”	“Formed or cast of one piece.”
“Insert-Receiving	“A bore located, at least in part, within the eccentric weight portion that is shaped to

Area”	hold securely a solid insert member.”
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## B. Infringement

### 1. Model 250 and Model 500 Pile Drivers

The Model 250 and Model 500 vibratory pile drivers each contain at least one set of “male” and “female” counterweights. As shown in Figure 4, the counterweights consist of a 360 pound “eccentric” bolted to either a male or female “gear,” respectively.

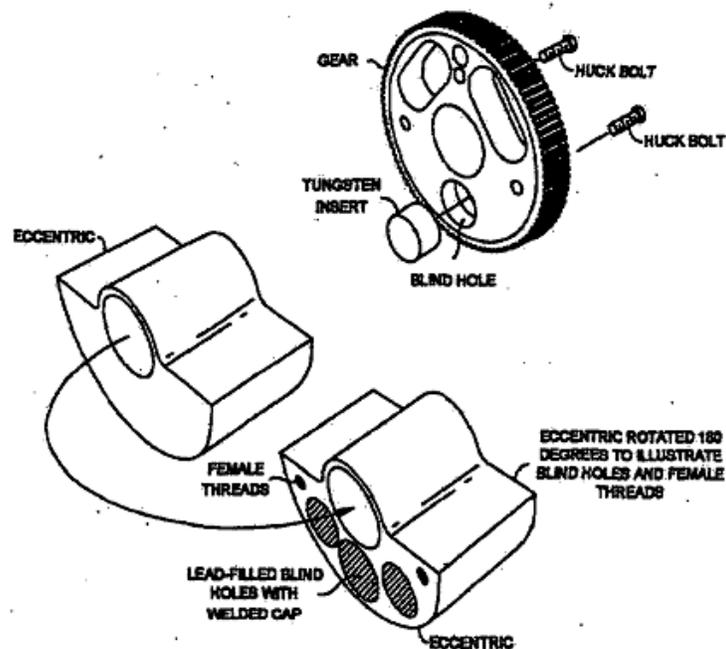


Figure 4

Both the male and female gears include a “blind hole”—a hole that does not extend completely through the component—that holds a tungsten insert, and the eccentrics contain multiple blind holes that are filled with molten lead. Although the male and female gears have

the same thickness, the female gears include what American Piledriving characterizes as a protrusion or “ridge” in the form of the major flat surfaces that “extend axially” 0.031 inch from the front and back surfaces of a peripheral portion of the gear.

American Piledriving contends that the female gear alone infringes the asserted claims, even under the construction of the disputed claim terms this court adopted above. American Piledriving asserts that each female gear satisfies the “eccentric weight portion,” “integral,” and “insert-receiving area” limitations because: (1) each ridge is an eccentric weight portion that extends from a face of the gear; (2) each gear has an insert-receiving area in the form of a blind hole; and (3) the ridge and the gear are part of the same one-piece structure—that is, they are integral. American Piledriving illustrates this infringement theory as shown in Figure 5:

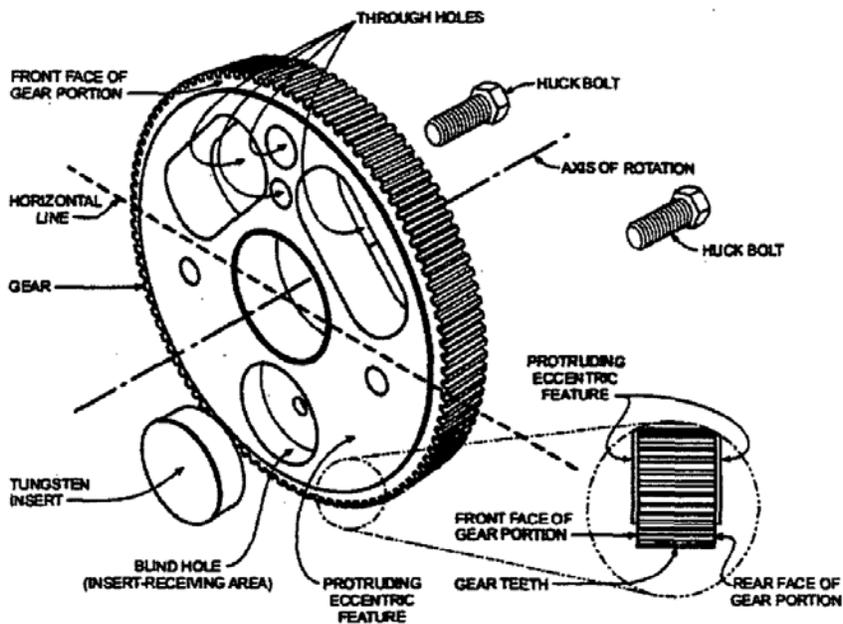


Figure 5

The Defendants contend that what American Pilediving calls ridges are nothing more than the faces of the gear, which have peripheral recesses cut from their front and back surfaces. Because the ridges do not extend from a face of the gear but are themselves faces of the gear, the Defendants argue that they cannot be considered “eccentric weight portions” as recited in the claims.

American Pilediving’s contentions are the result of a distorted reading of the language of both the specification and the claims and do not withstand critical scrutiny. Because the outermost flat surfaces of the gear are its “faces,” what American Pilediving calls a protrusion cannot be the claimed “eccentric weight portion,” as it does not extend from a face of the gear. Since the only possible “eccentric weight portion” of the accused devices is the structure that is bolted to the gear, the devices lack “an eccentric weight portion integral with said cylindrical gear portion” as required by the claims.

The accused devices also cannot be said to contain the “insert-receiving area” recited in claims 1 and 16, as the parties do not dispute that only the tungsten inserts can be considered a “solid insert member . . . [having] a melting point temperature of 328°C” and these inserts are contained wholly within the gear and not the “eccentric weight portion” as recited.

For the reasons stated, this court affirms the grant of summary judgment by both the Virginia and California district courts of noninfringement of the asserted claims by the Model 250 and Model 500 vibratory pile drivers.

## 2. Early Model 500 Pile Driver

The Early Model 500 pile driver was asserted only in the California action. It differs from both the Model 250

and Model 500 pile drivers in that it has tungsten inserts in both the gear and the eccentric:

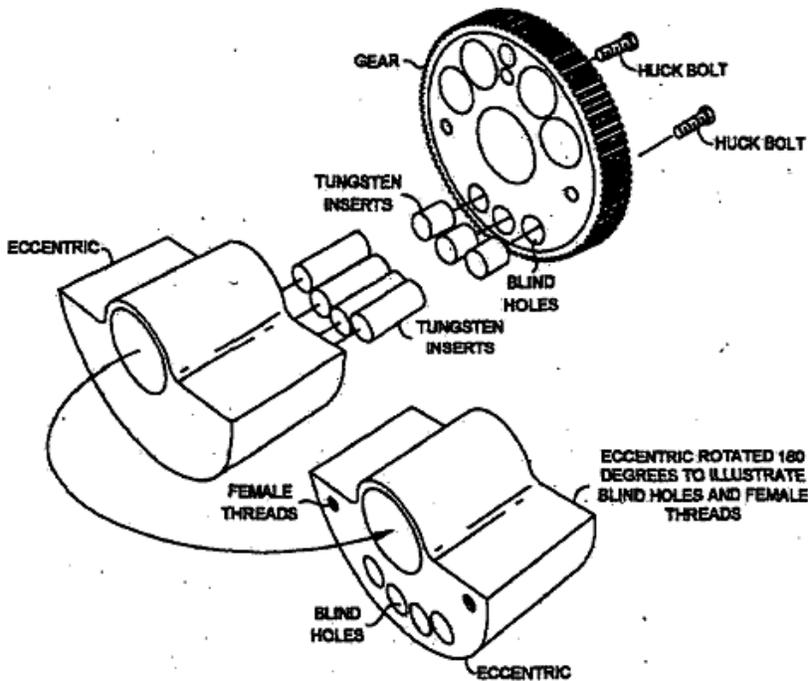


Figure 6

Thus, while the Early Model 500, just as the Model 500, fails to satisfy the “integral” limitation recited in claim 1, there can be no genuine issue of material fact that it satisfies all of the limitations recited in claim 16. Instead of requiring the cylindrical gear portion to be “integral” with the eccentric weight portion as recited in claim 1, claim 16 merely requires that the components be “connected to” one another, which encompasses the use of bolts. The device also satisfies the “insert-receiving area” limitation, as the “eccentric” unquestionably contains tungsten inserts. Because there is no dispute that the materials used to form the gear and the inserts of the Early Model 500 meet the steel and tungsten limitations of claims 17 and 18, the Early Model 500 infringes those claims as well.

Defendants point to the '946 Patent's discussion of the shortcomings of "bolted counterweights" to argue that the patent disclaims devices like the Early Model 500. As shown in Figure 6, the Early Model 500 joins the eccentric weight portion and cylindrical gear portion with huck bolts. However, the specification only critiques "counterweights having a *solid eccentric weight* bolted to a portion of a cylindrical gear." '946 Patent, col.1 ll.39-45 (emphasis added). Any disclaimer of bolted counterweights in the '946 Patent does not extend to the Early Model 500, whose eccentric weight portion includes holes filled with tungsten inserts.

\* \* \*

Because neither the Model 250 nor the Model 500 pile drivers infringe the asserted claims as construed by this court, we affirm the grant of summary judgment of noninfringement by the District Court for the Eastern District of Virginia. This court likewise affirms the grant of summary judgment by the District Court for the Northern District of California as to noninfringement of the asserted claims by the Model 250 and Model 500 pile drivers but reverses the grant of summary judgment and denial of American Piledriving's motion for summary judgment of infringement as to claims 16-18 by the Early Model 500 pile driver. The California action is therefore affirmed in part, reversed in part, and remanded.

### III. CONCLUSION

For the foregoing reasons, this court agrees with the claim constructions of the District Court for the Eastern District of Virginia and modifies the claim constructions of the District Court for the Northern District of California. This court affirms the judgment of the District Court for the Eastern District of Virginia and affirms in part,

reverses in part, and remands the judgment of the District Court for the Northern District of California.

**AFFIRMED IN PART, REVERSED IN PART, AND  
REMANDED**

**COSTS**

Each party shall bear its own costs.