

**IN THE UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF ARKANSAS  
NORTHERN DIVISION**

**BAD BOY, INC.**

**PLAINTIFF**

**v.**

**No. 1:16-cv-114-DPM**

**SPARTAN MOWERS LLC;  
INTIMIDATOR, INC.; and  
RF PRODUCTS, INC.**

**DEFENDANTS**

**ORDER**

**1. Summary.** The parties compete in making and selling high-end riding mowers. Robert Foster, an inventor, has connections on both sides of the case. He used to work with Bad Boy, left, and now works with Spartan-related companies.\* As part of the leaving, Foster allegedly assigned United States Patent No. 7,708,292—an “Independent Four Wheel Vibration Damping System for Riding Mowers”—to Bad Boy. The parties’ disputes have carried them into state and federal courts. Bad Boy here alleges that the Spartan SRT line of mowers infringes the ‘292 patent. Spartan denies infringement.

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\* Intimidator and RF Products are manufacturers; Spartan markets their mowers. The Court will use Spartan as a shorthand for all the defendants.

The Court must construe some disputed terms in the '292 patent. What did its five claims mean to a skilled artisan when the patent issued? 35 U.S.C. § 112(a); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1311–14 (Fed. Cir. 2005). The parties have filed comprehensive briefs. The Court heard helpful argument at a hearing, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), and afterward got an informative tutorial about the vibration-damping technology in Bad Boy's mower. No expert testimony or other extrinsic evidence was considered.\* The patent's meaning is in the claims' words, informed by the whole patent, including the specification. *Phillips*, 415 F.3d at 1313–14. The prosecution history, which is also intrinsic evidence of meaning, is helpful on one point, too. *Phillips*, 415 F.3d at 1317.

**2. Claims.** Here are Bad Boy's '292 claims, with the disputed terms in bold.

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\* The Court agrees with Spartan on the new pillow details revealed at the tutorial and in the parties' post-tutorial filings: the form in which this component was actually manufactured may be material on infringement; it shouldn't affect claim construction; and the Court will not consider, at this point, any pillow details not present in the patent. The Court also notes Spartan's concerns about post-tutorial letter briefing on the substantive issues already covered in the main briefs and at the hearing. The Court didn't consider any new arguments made in the letters.

The invention claimed is:

1. A riding mower having a frame, a mower deck supported beneath the frame, a chair on said frame and a source of motive power also supported on said frame;

said frame supported on forward and rear independent **wheel assemblies**, said wheel assemblies each supporting a wheel; and a vibration damping system interposed between said frame and each of said forward and rear wheel assemblies, said frame including a rear axle housing mounted transverse to the longitudinal axis of said frame and including parallel frame rails, said frame rails supporting said rear wheel assemblies;

said vibration damping system comprising **at least one elastomeric pillow interposed between said frame and each said forward and rear wheel assembly**, said elastomeric pillow being of a resilient material for absorbing shock and vibration resulting from a wheel contacting irregularities in the terrain traversed thereby and said **elastomeric pillow held in place by a fastener adapted to limit movement of said wheel assembly**.

2. The riding mower of claim 1, wherein said forward wheel assemblies caster in response to vehicle movement.

3. The riding mower of claim 1, wherein **said pillow is disposed on either side of each said wheel**.

4. The riding mower of claim 1, wherein said rear wheel assemblies include a suspension cage, said **suspension cage being pivoted relative to said frame, and pillows supporting said cage**.

5. A riding mower having a frame, a mower deck supported beneath the frame, a chair on said frame and a source of motive power also supported on said frame;

said frame supported on forward and rear independent **wheel assemblies**, said wheel assemblies each supporting a wheel and said forward wheel assemblies castering in response to vehicle movement and said rear wheel assemblies include a **suspension cage**, said **suspension cage being pivoted relative to said frame**; and a vibration damping system **interposed between said frame and each of said forward and rear wheel assemblies**, said frame including a rear axle housing mounted transverse to the longitudinal axis of said frame and including parallel frame rails, said frame rails supporting said rear wheel assemblies;

said vibration damping system comprising an **elastomeric pillow interposed between said frame and each said forward and rear wheel assembly** and on **either side of each said wheel**, each of said elastomeric pillows being of a resilient material for absorbing shock and vibration resulting from a wheel contacting irregularities in the terrain traversed thereby and each of said elastomeric pillows held in place by a **fastener adapted to limit movement of said wheel assembly**.

United States Patent No. 7,708,292.

To summarize, Bad Boy made five claims, two independent and three dependent. Claim 1 is independent and sets out the basic scheme: a riding mower with a vibration-damping system. Claims 2, 3, and 4 are dependent limitations that explain how this system works: Claim

2 defines the forward wheel assemblies; Claim 3 clarifies the need for elastomeric pillows next to the wheels; and Claim 4 propounds a pivoting suspension cage on the rear wheels. Claim 5 synthesizes all these details into a single, independent claim: a riding mower with mechanisms that provide smooth suspension.

3. **Scope.** Spartan's first point is that Bad Boy disavowed all vibration-damping systems except the one shown in the preferred embodiment. Spartan cites phrases scattered throughout the patent in support of this contention, arguing that Bad Boy disavowed other embodiments both explicitly and implicitly. The Court is not persuaded. The law presumes against disavowal. *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). Spartan is correct that this presumption can be overcome when it is made clear—explicitly or implicitly—that the patent is limited to the preferred embodiment. *Trustees of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016). But this standard is exacting. *Poly-America, L.P. v. API Industries, Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016). And there's no clear evidence in the '292 patent that satisfies this exacting standard.

Spartan argues from the specification's words, pointing (for example) to references to the "present invention." It also argues substantive points about specification, effectiveness, and

disparagement. The thrust of all these arguments is that Bad Boy's patent is so specific that no embodiment other than the preferred one is protected. Spartan's point has superficial power. Like almost every writing, this patent could have benefited from a better choice of words. That fact doesn't change the legal analysis, though. The Court isn't supposed to consider just the words' surface; it's supposed to discern what the patent means as whole, taking all the words in context. One of Spartan's main precedents underlines the point. "[T]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Trustees of Columbia Univ.*, 811 F.3d at 1366.

Taken in context, Bad Boy's five claims refer not just and only to the preferred embodiment, but to a novel concept: using elastomeric pillows in a certain way for independent vibration-damping on a lawnmower. The specifics Spartan highlights are meant to describe how this concept works, not to limit it. *Phillips*, 415 F.3d at 1323. In other words, it's all about the key ingredient and not the dish. There are many ways to use these damping pillows in mower suspension; and many skilled artisans could tinker with the version laid out in the preferred embodiment. That tinkering might result in some improvements or slightly different mowers, but the key ingredient would remain the same in each. The specifics cited by Spartan do some

limiting, but the general intention of the patent is otherwise clear to a skilled artisan. The '292 patent protects the novel use of certain pillows in mower suspension.

Spartan is correct, however, that Bad Boy disclaimed systems using springs, shock absorbers, and airbags. This is where the specifics have teeth. Bad Boy's patent description talks up the benefits of using elastomeric pillows—while disparaging other available methods. How Bad Boy convinced the United States Patent and Trademark Office that its suspension system differed from the *Melone* patent provides a clear example. Pillows, Bad Boy said, work to prevent the jamming that had undermined previous shock-absorbing technologies on mowers. This pitch was and is convincing. But it also limits Bad Boy's claims to certain squishy pillows—cushions that rely on their own material, not what's inside them (like an airbag), for damping—because that's what makes the '292 suspension system unique and immune from jamming. Other methods of shock absorption aren't protected.

Spartan's last global point, indefiniteness, doesn't meet the standard required by law. A claim is indefinite if it "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). That sort of uncertainty can be fatal because the goal of claim construction is to "define the invention to which [Bad Boy] is entitled

the right to exclude.” *Phillips*, 415 F.3d at 1312. The problem for Spartan, however, is that the disputed terms do give a skilled artisan notice about what the ‘292 patent protects: vibration-absorbing elastomeric pillows between the wheels and the frame of a riding mower. To absorb that vibration, the pillows must be fastened between the two. Any skilled mechanic (not to mention many unskilled enthusiasts) can see the import of this. And that import is focused on the pillows and their function, not the bolts or the frame. What matters—both in the engineering and in the law—is that the pillows need to be fastened in order to dampen vibration, not the precise way in which they are fastened. Indefiniteness isn’t an issue for this patent.

**4. Terms.** There are eleven terms before the Court, three of which are agreed and eight of which are disputed. They touch all five claims. And they also affect the patent’s scope. The Court construes these terms to keep faith with the ‘292 patent and help the jury decide about Spartan’s alleged infringement.

**Agreed Terms.** The parties agree on how to construe three terms. The Court is a bit skeptical about whether any construction is needed. A jury would understand the plain meaning here. But there is little harm in clarification, particularly when it eliminates confusing legal jargon, such as the superfluous use of the word “said.” The Court therefore adopts the parties’ agreed constructions.



- **Wheel assembly** is construed as *“a wheel supported by an axle.”*
- **Interposed between said frame and each said forward and rear wheel assembly** is construed as *“located between the frame and each of the two forward wheel assemblies and each of the two rear wheel assemblies.”*
- **At least one elastomeric pillow interposed between said frame and each said forward and rear wheel assembly** is construed as *“one or more elastomeric pillows interposed between said frame and each of said forward and rear wheel assemblies.”*

**Disputed Terms.** The parties have organized them into three groups: the elastomeric pillow terms, the term “either,” and the suspension cage terms. This architecture is helpful.

#### **Elastomeric Pillow Terms**

Bad Boy disclaimed other vibration-damping systems during the application process, in its specification, and by disparaging prior art. But the general subject matter was not disavowed and the ‘292 patent’s terms are clear, not indefinite. This patent protects vibration-damping systems that use elastomeric pillows as cushions between a lawnmower’s wheels and frame. The pillows must be attached to both in order to function. And, to avoid jamming, each pillow must be able to prevent debris infiltration, plus absorb shock even if what’s inside the pillow (if anything other than the primary elastomer is used to make

the pillow) happens to fail. In other words, the pillow terms are all about the resilient material that makes up the pillow.

- **Elastomeric pillow** isn't in obvious need of construction. But, to avoid any confusion, the Court will define the term. It's construed as *"a resilient material having one of several durometers of rubber hardness, which can include an elastic shell with liquid or other compressible material within the shell, and that absorbs vibration primarily because of its elastic resilience. An airbag, spring, or shock absorber is not an elastomeric pillow."* This definition most closely tracks the claim language and echoes the specification. It describes the scope of the invention claimed—resilient damping pillows for riding mowers—while excluding systems that were disclaimed, such as springs, shock absorbers, and airbags.
- **Fastener** doesn't require construction. A jury will understand what can fasten a pillow and what can't. The patent doesn't limit itself to bolts of a specific type; it covers all fasteners. And it would be clear to a skilled artisan how the fastener works with the damping pillows, so means-plus-function isn't applicable, especially without the triggering word "means." *Williamson v. Citric Online LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc); *Phillips*, 415 F.3d at 1310–11.
- **Elastomeric pillow held in place by a fastener adapted to limit movement of said wheel assembly** doesn't require construction. This term concisely captures one of the deep issues in dispute: is this patent about pillows or fasteners? It's about pillows.
- **Each said wheel** is construed as *"every wheel."* Spartan's proposed definition eliminates unnecessary legal jargon. It

also matches the singular (“each individual wheel”) used elsewhere in the patent. ‘292 Patent, Col. III. 33.

### **Either**

The next group involves only one term. That term depends on the appearance of the word either in the phrase “said pillow is disposed on either side of each said wheel.” Does either mean both sides of the wheel or simply one side, without preference? Both parties make compelling arguments. Bad Boy points to the plain meaning of the word, while Spartan points to the specification. That specification, read alongside the claims, implies that there is something unique about having a pair of pillows. ‘292 Patent, Col. III. 13–17. But that implication isn’t enough to overcome the plain meaning of the claims. Claim 3, for example, refers to “said pillow” in the singular. And the word “either” has a double meaning, both colloquially and to skilled artisans. A passerby and an engineer might say “there are utility lines on either side of this road” and “the utility lines could be run on either side of this road.” It’s reasonable that a pillow located on one side—or two pillows, one on each side—could provide the benefit described in the patent. The Court declines to limit the term.

- **Said pillow is disposed on either side of each said wheel** doesn’t require construction. The patent says in Claim 1 and in the Abstract that the invention involves “at least one” pillow per wheel. ‘292 Patent, Col. IV. 26–27. Taking the ‘292 patent as an integrated whole, and accounting for

either's alternative meanings, the need for any construction fades away.

### **Suspension Cage Terms**

Here again, the Court is asked to construe terms that aren't obviously murky. Spartan is right, however, that there is some latent ambiguity. What is a suspension cage? The term isn't indefinite—the description makes clear what's going on. Clarity comes by reading the claims against the specification's background. That supplementation, in turn, limits the claims to structures that pivot relative to the frame and support the wheel assemblies.

- **Suspension cage** is construed as a "*hinged structure that supports the wheel assembly.*" Bad Boy is correct that this construction defines the suspension cage specified in the patent. It eliminates ambiguity and reflects what a skilled artisan would have known at the time of the patent.
- **Suspension cage being pivoted relative to said frame** doesn't require construction. Pivot is a clear and common word. And no one contests that pivoting is essential to free rotation of the wheels. A jury will be able to equate the two.
- **Pillows supporting said cage** doesn't require construction. The fact that the pillows dampen vibration between the wheels and frame is clear.

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Informed by the parties' helpful arguments, and considering only intrinsic evidence, the Court concludes that the best construction of the

disputed terms is mostly no construction. Bad Boy's disclaimer of airbags, and some needed particulars provided only in the specification, require some limitation of the five claims. Otherwise, the parties' disputes are really about infringement, which is for the jury in due course. The Court approves the parties' agreed constructions, modifies Bad Boy's proposed definition of "elastomeric pillow," adopts Spartan's proposed definition of "each said wheel," and adopts Bad Boy's proposed definition of "suspension cage." All other terms proceed without construction.

So Ordered.

*D.P. Marshall Jr.*  
D.P. Marshall Jr.  
United States District Judge

*1 February 2018*