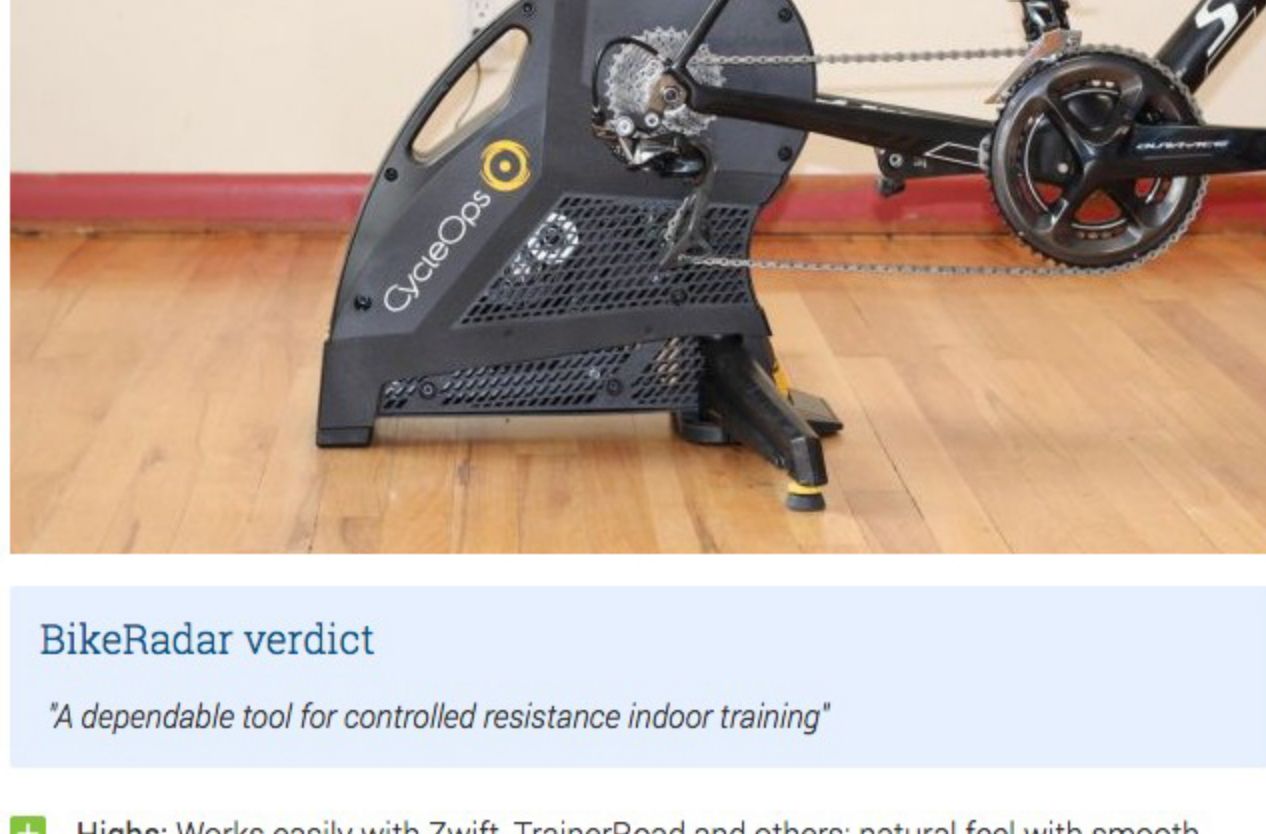


# CycleOps Hammer direct drive trainer review

A legitimate smart-trainer contender to the Kickr

BikeRadar score ★★★★★ 4/5



## BikeRadar verdict

"A dependable tool for controlled resistance indoor training"

- + **Highs:** Works easily with Zwift, TrainerRoad and others; natural feel with smooth resistance transitions; stable; seemingly accurate power measurement
- **Lows:** Heavy (like all smart trainers); intermittent clacking noise; can slip under violent acceleration on steep virtual hill

- Buy if:** You want a dependable smart trainer for use with interactive software and you're not interested in Tacx or Wahoo products

Updated Feb 2017 after more testing

### Specification

CycleOps has made solid trainers for decades and, under its PowerTap brand, power meters for almost as long. The new Hammer direct drive smart trainer combines both technologies, with the ability to not only measure power but wirelessly control resistance in sync with third-party training software like Zwift or TrainerRoad.

Name:	Hammer direct drive trainer
Built by:	CycleOps
Colour:	Black/Yellow
Features:	Third-party controlled resistance via Bluetooth and ANT+
Folding:	Yes
Turbo Trainer Type:	Smart

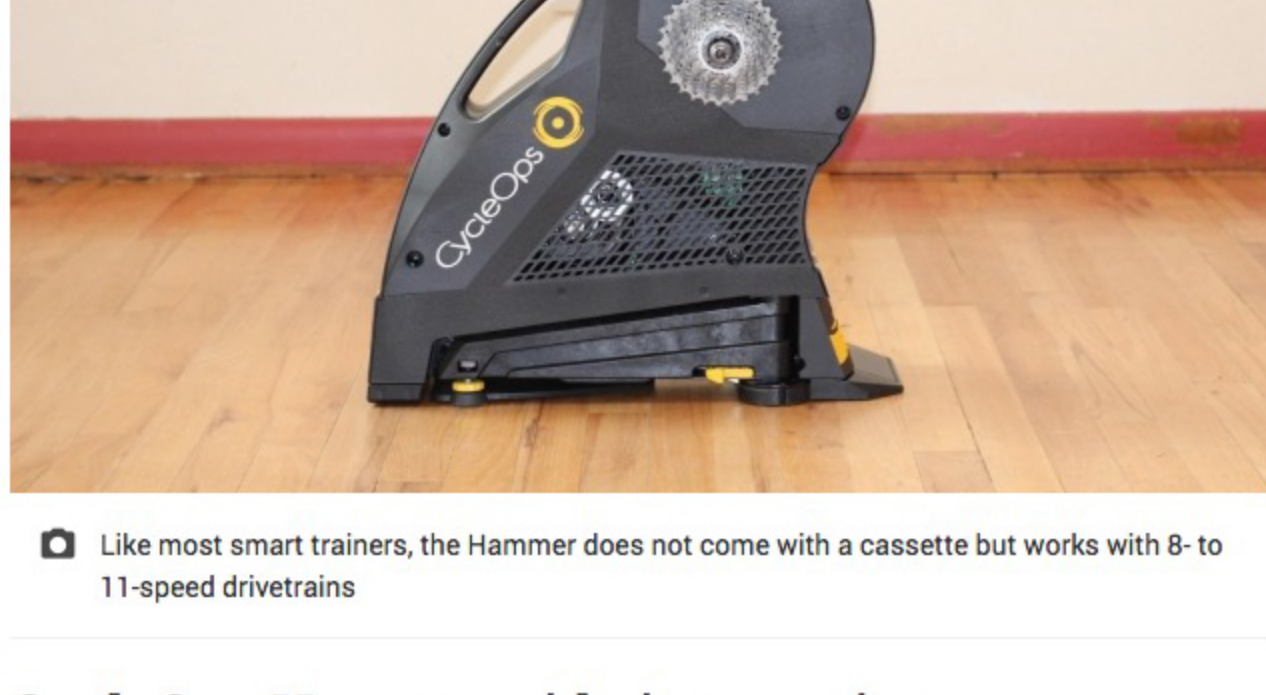
The 'direct drive' means you take out your rear wheel and mount your bike directly on the trainer, eliminating the wheel and the tire from the equation.

In general, the Hammer performs very well, on par with the category leader, the [Wahoo Kickr](#).

Whether mimicking hills in a virtual program or raising and dropping resistance to a specific wattage with an interval program, the Hammer smoothly adjusts the ride with electromagnetic power working in tandem with a 20lb flywheel.

## CycleOps Hammer overview

- > 20lb flywheel with electromagnetic resistance controlled by third-party apps and software
- > Receives and transmits info via Bluetooth and ANT+
- > Works with quick-release and thru-axle bikes
- > Integrated front tray tucks into frame when not in use
- > 47lb / 21.3kg weight
- > Claimed 64dB at 20mph; I measured it at 70dB at 200w
- > Claimed accuracy of +/- 3%, but I found power readings to be within 1-2% of Quarq and Stages
- > Works with Zwift, TrainerRoad, CycleOps' own VirtualTraining and other apps



- Like most smart trainers, the Hammer does not come with a cassette but works with 8- to 11-speed drivetrains

## CycleOps Hammer ride impression

Whether riding a virtual course on Zwift or VirtualTraining, or following specific intervals on TrainerRoad, the Hammer adjusts resistance quickly and smoothly.

Like all smart trainers, the beauty of the Hammer is that — once you plug it into a software on your phone or computer with either Bluetooth or ANT+ — you just ride and let the electronics do their thing, adjusting the resistance to mimic hills or to the specified intensities of your interval workouts.

I tested the Hammer against Quarq and Stages power meters and found the averages of the three to be within two percent.



- A front wheel tray is included, but since the trainer height is set low you don't have to use it, which I appreciate

Physically, the Hammer sits solidly on the floor. The legs pop out, releasing a thin wheel tray from underneath.

I appreciate CycleOps' move to a lower trainer height than its previous Silencer direct drive model, which required a wheel block to level the bike.

With the Hammer you don't need to use the wheel tray if, like me, you're riding in a grimy garage and can't be bothered. But if you are setting your bike on a mat, carpet or elsewhere inside, the wheel tray is easy enough to use.

## CycleOps Hammer vs. the competition

Wahoo kicked open the smart trainer category with its Kickr, now in a second iteration. In the US at least, the Hammer and the Kickr are priced identically and perform pretty darn similarly.

The most notable difference between the two is how exacting the controlled resistance is to a particular program.

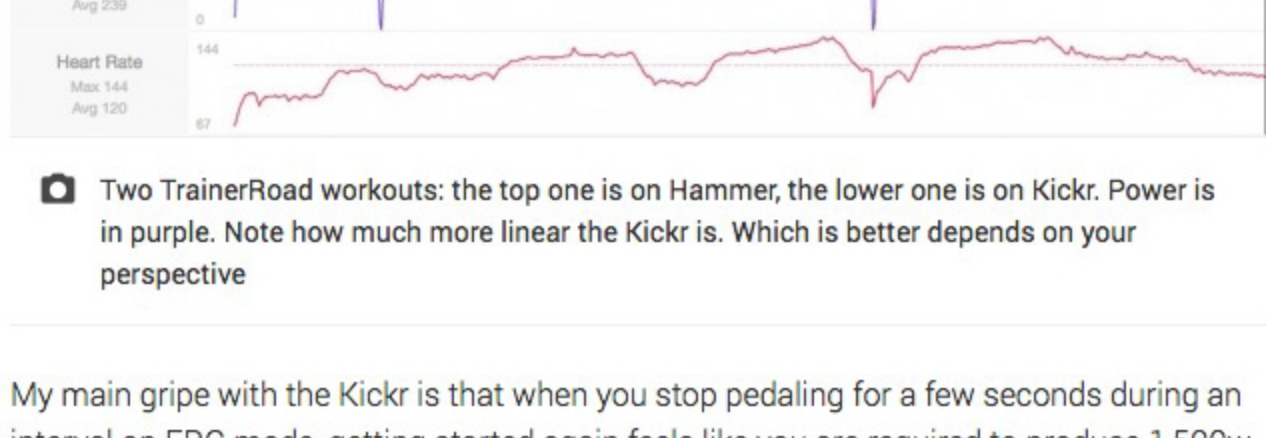
On most interactive workouts, whether in Zwift or TrainerRoad or elsewhere, you are shown the wattage target (what you are supposed to be producing) and your actual wattage (the power you are producing at that moment).

Using Kickr, the controlled resistance seems to more closely adhere to the target power, all but forcing you to ride that exact power.

Also, the actual wattage seems to track very, very close to the target power. This is because Wahoo has removed acceleration from the algorithm, resulting in interval blocks that look satisfyingly geometric.

Using Hammer, the controlled resistance puts you in the rough ballpark of the target power, within 20w or so, and then it is up to you to fine-tune your effort to match the prescribed wattage.

Personally, I found the Hammer's approach to feel more natural and more similar to doing intervals outside, but the resulting data also looks much more like doing wattage outside, too.... so no super-smooth geometric shapes for your intervals.



- Two TrainerRoad workouts: the top one is on Hammer, the lower one is on Kickr. Power is in purple. Note how much more linear the Kickr is. Which is better depends on your perspective

My main gripe with the Kickr is that when you stop pedaling for a few seconds during an interval on ERG mode, getting started again feels like you are required to produce 1,500w to get on top of the gear because of acceleration being removed from the algorithm.

The Hammer feels more forgiving; if you fall off the pace and your wattage drops to 0, you can spin back up again without snapping your legs in the process.

I have a few small gripes with the Hammer. Two arise during specific situations while riding in Zwift.

When approaching a very steep hill, like the ramp out of the subway on the London course, if your shift from the big ring to the small ring and there is a split-second drop in power, often your avatar will come to a stop — even though your cadence hasn't dropped a single rpm.

It's a rare and software-specific thing, but it's annoying.

Also, I was able to get the resistance to slip for a split second on that same steep virtual hill; when climbing at a low cadence and high resistance, then standing and stomping hard on the pedals, the resistance slipped for a fraction of a second, like when your tire slides out when climbing a steep hill and you hit a little patch of sand.

The final gripe is the intermittent noise.

While the steady noise is in the normal range for smart trainers — around 70dB — the Hammer sometimes makes little clicks or faint whines.

Is this temperature related? (I keep trainers in my non-heated garage.) I have no idea. The sounds are not loud at all, but noticeable.

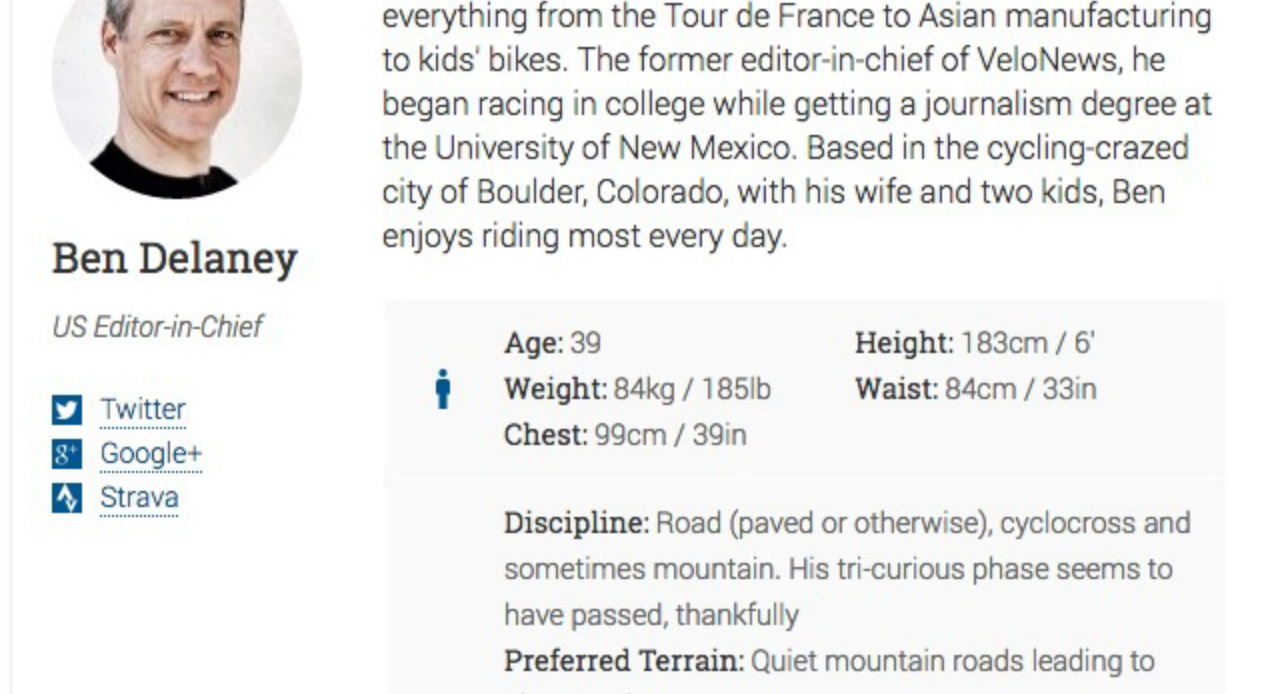
## CycleOps Hammer bottom line

The Hammer is an excellent smart trainer that quickly connects to the major training software and apps, and controls resistance smoothly and strongly.

If you have ridden a Kickr, the data will seem less controlled, but I believe that you will find the ride to feel a little more natural.

Like all smart trainers, the Hammer is neither light nor cheap.

You certainly do not need a smart trainer to ride Zwift or TrainerRoad, but a controlled-resistance tool like the Hammer certainly enhances the experience.



- It doesn't look like riding a bike outside, but the smooth, controlled resistance can help replicate some of the feelings of riding outdoors



**Ben Delaney**

US Editor-in-Chief

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Ben has been writing about bikes since 2000, covering everything from the Tour de France to Asian manufacturing to kids' bikes. The former editor-in-chief of VeloNews, he began racing in college while getting a journalism degree at the University of New Mexico. Based in the cycling-crazed city of Boulder, Colorado, with his wife and two kids, Ben enjoys riding most every day.

**Age:** 39 **Height:** 183cm / 6'

**Weight:** 84kg / 185lb **Waist:** 84cm / 33in

**Chest:** 99cm / 39in

**Discipline:** Road (paved or otherwise), cyclocross and sometimes mountain. His tri-curious phase seems to have passed, thankfully

**Preferred Terrain:** Quiet mountain roads leading to places unknown

**Current Bikes:** Scott Foil Team, Trek Boone 5, Specialized S-Works Tarmac SL4, Marinoni fixed gear, Santa Cruz Roadster TRM bike

**Dream Bike:** A BMC Teammachine SLR01 with disc brakes and clearance for 30mm tires (doesn't yet exist)

**Beer of Choice:** Saison Dupont

**Location:** Boulder, CO, USA