

Bow Report

By Bill Krenz

Mathews McPherson Series Monster

Mathews founder and President Matt McPherson has been designing and producing compound bows since about 1970. He launched his very first bow company, McPherson Archery, in 1985. That company specialized in fast two-cam bows with unusually high letoff. Difficulties with partners caused Matt to sell his shares in that company just three years later. But in 1992, armed with an even better idea (the one-cam concept), Matt founded Mathews Inc., and the bow world was forever changed.

For the next 16 years the golden logo of Mathews stood for inventive solo-cam bows. In that time Matt continuously improved his eccentrics and his bows, while legions of archers and nearly every one of his competitors were eventually won over by the simplicity, reliability and superb performance of Matt's one-cam eccentric system.

"I knew from the very beginning," Matt once told me, "that the one-cam system was superior to all other compound-bow systems...with one tiny exception. That exception was in its ability to milk that last three percent of arrow speed out of a compound bow. Not everyone wants or needs that sort of max speed, but some do. I could make a smooth, accurate one-cam system go surprisingly fast. But to push the arrow speed that last little bit, I recognized that I needed a new and truly advanced two-cam system."

And so, after 16 years of focusing on cutting-edge, solo-cam bows and 20-plus years after McPherson Archery, Mathews has debuted its first dual-cam bow—the Mathews Monster.

Actually, to be correct, it's the Mathews McPherson Series Monster. In a strange twist of fate, Matt recently bought back the name of his original bow company and is now using that moniker once again for his revolutionary two-cam creations. In that sense, Matt's bow designs have come full circle.

The McPherson Series Monster is one of the fastest, most efficient dual-cam compound bows ever produced. It features a full 80-percent letoff, highly pre-loaded Quad V-Lock Limbs, Harmonic Dampers, Mathews Angled Roller Guard, In-Line Grip, String Grubs and an innovative Harmonic Stabilizer, and it introduces AVS

Technology. AVS, which stands for Advanced Vectoring System, is a totally new and revolutionary two-cam system that's faster than lightning. AVS and the new Mathews Monster are helping to dramatically raise the bar on dual-cam engineering and bow performance.

How It Shoots

Like everyone else, I'm interested in how a bow shoots in terms of how it draws, how quiet or noisy it is at the shot, how much hand shock it possesses when an arrow is released, how much arrow speed it generates and how easy it seems to shoot accurately.

The draw cycle of the Monster is unique. It begins surprisingly smooth for a bow this radically fast, loads up a bit near the end and then promptly lets off to a comfortably firm wall. If anything, the draw feels smoother to me than most other really fast bows. That slightly odd weight buildup near the end of the draw cycle is easily explained. The Monster's Advanced Vectoring System includes two oversized, off-center cam bearings, which are distinctively red in color and located on each side of the upper and lower cams on the Monster. Those red bearings are revolutionary. As the Monster is drawn, the off-center red bearings rotate, first toward the archer and then, near the end of the draw, inward toward the opposing cam.

The striking benefits of the system are threefold. To begin with, the Advanced Vectoring System stores more energy for more arrow speed. It also maximizes the bow's letoff for more shooting comfort. And it synchronizes the two cams together for easier tuning and enhanced accuracy. I could feel that seemingly perfect, smooth cam synchronization every time I drew the bow.

At the shot, the Mathews Monster is surprisingly quiet and shock-free, even with the fastest arrows. The sound seems duller and more muted than with many super-fast bows. Adding the company's new DeadEnd String Stop (it mounts quickly to the Monster's rear stabilizer bushing) further dampens shot noise and especially vibration.

Arrow speed with the Mathews Monster is simply astonishing. Just a few years ago archery engineers would have told you that it wasn't possible to build



The unique, oversized red bearings located on each side of the cams on the Monster are revolutionary. They help the system store more energy, maximize the bow's letoff and synchronize the upper and lower cams.



Dramatically pre-loaded 14-inch limbs on the Monster are locked into self-aligning limb pockets, and their past-parallel configuration helps dampen shot vibration and noise.



Specifications

Mathews Monster

Axle-to-Axle Length	33.5 inches
Brace Height	6 inches
Riser Geometry	4.6 inches reflex
Mass Weight	4.4 pounds
Letoff	80 percent
Draw Lengths	25 to 30 inches
Draw Weights	40#, 50#, 60#, 70# & 80#
Camo	Realtree AP Camo, Black Riser

For more information, log onto mathewsinc.com or call (608) 269-2728.

Arrow Speed

2009 Mathews Monster set at 29 inches (by factory) and adjusted to 70 pounds

28-INCH ARROWS	SHAFT: GRAMS/IN	ARROW: TOTAL WEIGHT	KINETIC ENERGY	ARROW SPEED
EASTON XX78 ALLOY 2512	10.3	448 GR.	92.0	304 FPS
EASTON FULL METAL JACKET 400	10.2	426 GR.	91.5	311 FPS
CARBON EXPRESS ARAMID KV 350	9.8	415 GR.	90.9	314 FPS
CARBON TECH WHITETAIL 65/80	9.5	411 GR.	91.1	316 FPS
CARBON EXPRESS MAXIMA HUNTER 350	8.9	398 GR.	90.5	320 FPS
EASTON ST AXIS N-FUSED 400	9.0	392 GR.	90.3	322 FPS
BEMAN ICS HUNTER ELITE 400	8.4	390 GR.	90.3	323 FPS
GOLD TIP XT HUNTER 55/75	8.2	385 GR.	89.8	324 FPS
PSE RADIAL X WEAVE HUNTER 300	8.1	376 GR.	89.8	328 FPS
EASTON LIGHTSPEED 400	7.4	363 GR.	89.4	333 FPS
GOLD TIP ULTRALIGHT PRO 400	7.4	361 GR.	89.4	334 FPS
CARBON TECH CHEETAH 400	6.4	346 GR.	88.8	340 FPS
HIGH COUNTRY SPEED PRO MAX	5.5	303 GR.	88.2	362 FPS

Bow weighed with an Easton Bow Force Digital Scale. All tests conducted with a Spot-Hogg Hooter Shooter Portable Shooting Machine and a Competition Electronics Pro Chronograph.



New for 2009 and located near the bottom of the Monster's riser is the Mathews Harmonic Stabilizer. Its 3-ounce weight dampens shot vibration like never before and better balances the bow.

a bow this fast while being this shootable. And the Mathews Monster is most assuredly shootable. It does take consistent shooting form to master any bow this fast with a riser this reflexed, but I found the Monster a breeze to tune and arrow groups to be pleasingly tight all the way out to my 80-yard target.

This Monster does indeed deliver monster arrow speed, but it's far from being an ogre when it comes to overall shooting performance. In fact, I could see it becoming a very good friend.

Key Features and Benefits

Advanced Vectoring System

There are five things you need to know. The AVS dual-cam system on the Mathews Monster is blazing fast. It's completely synchronized for a smooth draw and easy tuning. It's beautifully balanced for negligible cam and limb lean.

It utilizes interchangeable modules for draw length adjustment. It is totally revolutionary. Fast, synchronized, balanced, adjustable and trendsetting. That's Mathews AVS.

Pre-Loaded Quad V-Lock Limbs

The highly pre-loaded Quad V-Lock Limbs on the Monster are tough as nails. They're medium length to spread draw and shot forces, and they're locked securely into self-aligning limb pockets. They're also past-parallel-configured to dampen shot vibration and noise.

Harmonic Stabilizer

Brand new for 2009, and factory installed on the Monster, is the Mathews Harmonic Stabilizer. Located in the bottom Harmonic Damper hole on the Monster's riser, the Harmonic Stabilizer is both a very effective vibration dampener and a bow balancer. The Harmonic Stabilizer weighs approximately 3 ounces. It steadies the bow at full draw and dampens like never before.

Angled Roller Guard

The now-much-copied Mathews Roller Guard reduces cable-system resistance by guiding each cable within low-friction wheels. That's the technical advantage. The practical benefit is that this is the shortest, trimmest, most out-of-the-way cable guard ever.

Harmonic Damping System

Integrated into the Monster's riser and Roller Guard are Mathews Harmonic Dampers. These unique dampers, which consist of a weight suspended within a flexible rubber spiral, are wonderfully effective at absorbing and dissipating residual shot vibration.

