

# *2010 Compound Bow Evaluation*

**Mission Maniac**

*By Anthony Barnum*

**MISSION<sup>®</sup>**  
BY MATHEWS<sup>®</sup>

# Mission Maniac

## Introduction:

As they are a newcomer to my yearly bow evaluations, I was not quite sure what to expect when I began testing the Mission Maniac. I must say that, overall, I am pleasantly surprised. This budget minded bow is Mission's flagship offering for 2010 and has some of the great features found on its cousins in the Mathews lineup. Specifically, the Maniac includes the dual string suppressors that have been a staple in the Mathews lineup for years as well as the relatively new quick-change axle. The latter is rendered almost useless, though, because of the immense adjustability that the Maniac offers. The draw-length is adjustable via rotating module from 22"-30" on the dual cam system employed on the Maniac and, as a whole, the draw-weight ranges from 20-70 pounds. On the 60 pound model used in this evaluation, the Maniac adjusts from 27 pounds minimum at a 22 inch draw length all the way up to 64 pounds maximum at a 30 inch draw length. This versatility makes the Maniac a great choice for young archers who will continue growing or those who are new to the sport and don't quite know what their ideal setup will be. But don't let this fool you – the Maniac is a great all-around hunting bow with a great price to boot.

The Maniac sample that was provided for this evaluation was measured to have a brace-height of 7.140 inches, while the axle-to-axle length was measured to be 30 15/16 inches. The requested 29 inch, 60 pound model was measured straight out of the box to have a 29 1/8 inch draw length and peak draw-weight of 60.1 pounds, putting the Maniac squarely within the test specifications without requiring any adjustments. It is important for me to note this as the majority of bows that I test do not conform to the specifications in one or both categories. When shot by hand with a 300 grain arrow, the Maniac achieved an average speed of 290.9 fps in the out of box configuration with only a brass nock added to the string.

## Subjective Test Results:

### Fit & Finish:

The fit and finish on the Maniac sample provided for this evaluation was average. Overall, the machining and anodized finish on the eccentrics and string suppressor was quite good and not machining marks were noted. The Realtree Advantage Max 4 camo finish is quite appealing to look at, but various "pin-prick" areas void of film-dip finish were noted on the lower half of the riser and both limbs. There were no noticeable blemishes on the synthetic pivoting limb pockets while the strings and cables exhibited no fraying or serving separation.

### Grip:

The standard handle on the Maniac is a 1-piece synthetic grip. There is some texture in the synthetic material that helps to keep the bow from slipping in your hands and affords comfortable, repeatable hand placement. Each time I drew the bow back, my hand placement was consistent and my attempts to intentionally torque the bow met moderate resistance. The Maniac seemed to balance quite well at full-draw even though it has a relatively short stature at 31" axle-to-axle.

### Draw Cycle:

So far this year, the Maniac is one of the smoothest drawing bows that I have tested. The dual cam system stack very gradually to peak weight a little over half-way into the draw cycle and transitions even more gradually and smoothly into a lengthy valley. If I did have one complaint, though, it is that the back wall on the Maniac is not very well defined. On average, the Maniac stores 3.5 ft-lbs. of energy for each inch that you draw it back.

### Sound & Vibration:

When shooting this bow by hand, I noticed a slight amount of residual vibration that remained in the riser for a short duration after the shot. Otherwise, there was very little shock or jump at the shot and I was pleasantly surprised at how still the Maniac was in my hands. From the shooter's perspective, the Maniac also seems to be below average on sound output.

## Mission Maniac

### Contact Info: Mission Archery

[www.MissionArchery.com](http://www.MissionArchery.com)

<b>MSRP:</b>	\$449	<b>Draw Length:</b>	22 "-30" *
<b>Cams:</b>	Dual Adjustable cam	<b>Draw Weight:</b>	20- 70*
<b>Limbs:</b>	Solid Limb	<b>Brace Height:</b>	7 1/8" *
<b>Grip:</b>	Composite one piece	<b>Axle to Axle:</b>	31" *
<b>Let-off:</b>	77%*	<b>Mass Weight:</b>	4.1 ^
<b>String:</b>	Zebra Hybrid		
<b>Damping:</b>	D-Amplifiers, String Suppressors		*Advertised
<b>Finish:</b>	Realtree Advantage Max 4 HD		^Measured

### Performance at a Glance (60.1 lbs, 29 1/8"):

Arrow	Speed	K.E.	Momentum
300 Grains	289.5	55.8	12.4
360 Grains	267.9	57.4	13.8
420 Grains	251.1	58.8	15.1
540 Grains	224.0	60.2	17.3

<b>Arrow (Grains):</b>	<b>300</b>	<b>360</b>	<b>420</b>	<b>540</b>
<b>Dynamic Efficiency:</b>	78.8%	81.0%	83.0%	85.0%
<b>Speed Per Inch of PS:</b>	14.3	13.2	12.4	11.1
<b>Noise Output (dBA):</b>	88.2	83.3	82.7	80.0
<b>Total Vibration (G):</b>	178.1	171.4	167.1	121.5



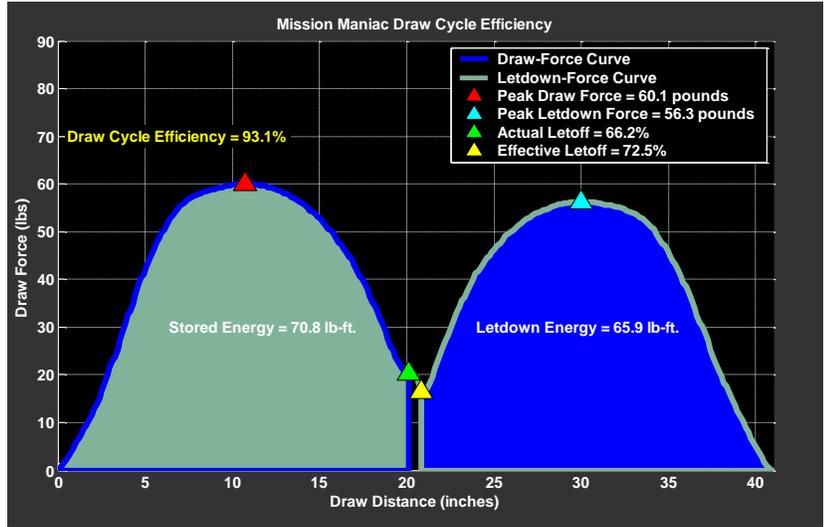
# Mission Maniac

## Objective Test Results:

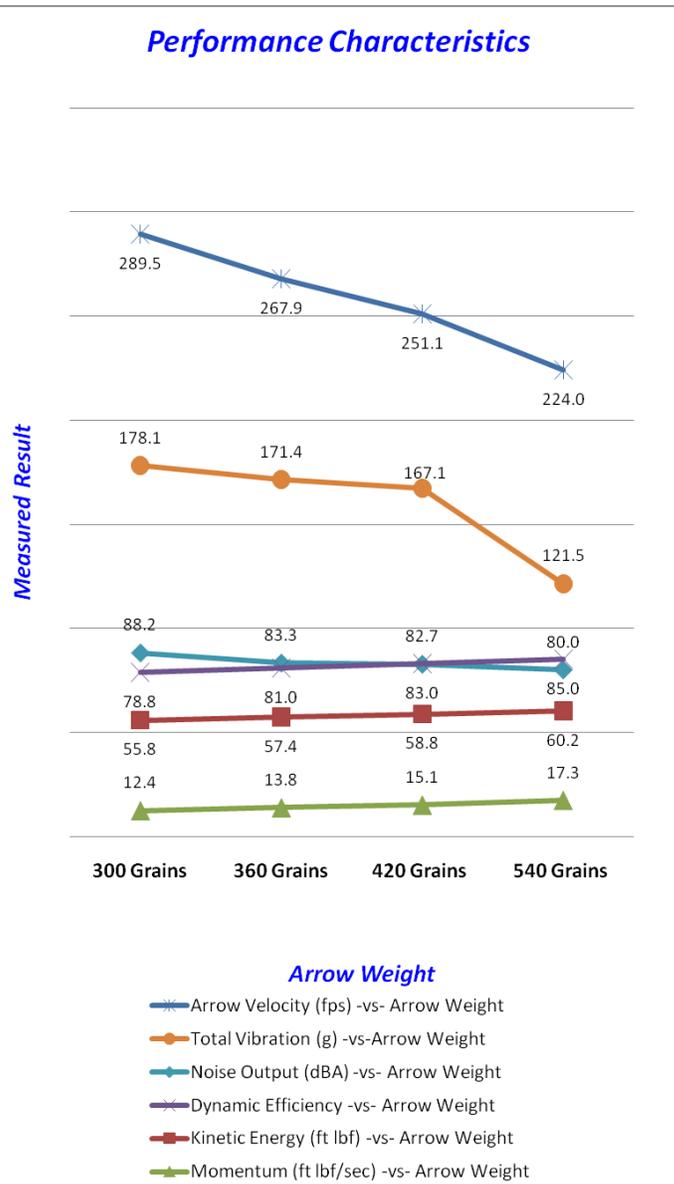
### Speed / Performance Measurements:

Speed measurements are made with 4 different arrow weights to determine the average speed of the bow per inch of Power Stroke. Draw Cycle Efficiency is calculated using the stored energy and the let-down energy captured in the Force-Draw curve. The stored energy is used further to determine the average dynamic efficiency of the bow.

**Speed per inch of Power Stroke:** 12.8  
**Dynamic Efficiency:** 82.0%  
**Draw Cycle Efficiency:** 93.1%



### Performance Characteristics



### Vibration Measurements:

Vibration measurements are made with 4 different arrow weights to determine the average vibration in 3 dimensions as well as the total average vibration.

**Positive X-Vibration:** 86.0 g  
**Negative X-Vibration:** -104.1 g  
**Positive Y-Vibration:** 131.3 g  
**Negative Y-Vibration:** -140.2 g  
**Positive Z-Vibration:** 77.0 g  
**Negative Z-Vibration:** -78.6g

**Total Vibration:** 159.5 g

### Sound Measurements:

Sound measurements were made with 4 different arrow weights to determine the average sound output, the average A-Weighted sound output (mimicking the human ear) and the average C-Weighted sound output.

**Unweighted Sound Output:** 100.3 dB  
**A-Weighted Sound Output:** 83.6 dBA  
**C-Weighted Sound Output:** 91.1 dBC

