

# BOW REPORT

By Jon E. Silks

## Hoyt Trykon JR and Trykon Sport

Hoyt is one of the top bow companies in the world and maintains that standing by manufacturing innovative and technologically advanced bows that meet the needs and wants of its huge fan base. Popular features such as the TEC riser, Cam & ½ eccentric system, parallel limb configuration and unique vibration dampening devices can be found on their top rigs. Demanding bowhunters and target archers have come to expect great things from Hoyt and they have not been disappointed.

Hoyt has another passion – family! They have committed to creating a line of bows that will reach out to archers of all ages. Not only did they want to simply have a bow to offer younger archers, they wanted those bows to be top-of-the-line – just like Dad's. Enter the Trykon Series youth models Trykon Jr. and Trykon Sport. Designed to be extremely versatile these models have much to offer. Lets take a look...

**Riser:** Keeping with the theme that these bows are just like Dad's, Hoyt builds both on their proven TEC design riser. The TEC riser performs like a shock absorber, dampening vibration through the truss rather than through the grip. Through a die-cast process the stylish and lightweight riser is formed with a magnesium alloy metal. This process coupled with the inherent strength offered by magnesium alloy allows Hoyt to manufacture the TEC riser with an "open" format. In other words, there are large cutouts from end to end and a large space between the grip and rear

truss. Coupled with a slim structure the open format results in an over-all mass weight of only 3.375 pounds. The riser has a 2-inch reflex geometry and measures approximately 19.5 inches long. Just as with any adult bow, the reflexed design increases the power stroke, which in turn increases arrow speed. Power stroke is the distance the string moves from its "at rest" position to the end of the cycle at full draw. The Trykon Sport & Jr. both feature a metal stabilizer mounting insert, two-piece grip and straight carbon cable guard, which is held in place by two set screws. Each of the two plastic side panels that make up the grip is seated into a shallow pocket just below the shelf area and is held in place by a small hex head screw. The particular model name for each bow (Sport or Jr.) can be found on a label that is set into a shallow pocket on one side of the riser located at the same vertical position as the stabilizer-mounting insert.

Both models are dip finished in Realtree HD or powder coated in red, blue, black, yellow, or pink.

*So, what does all this mean to Mom, Dad and the shooter?*

Using a magnesium alloy die-cast riser rather than one that is fully machined keeps the over-all cost (only \$299 MSRP) to a minimum without sacrificing strength or weight.

The plastic side panels are low profile resulting in a narrow grip for smaller hands.

Some archers will be pleased to see their new rig decked out in Realtree's HD green – just like Dad's hunting bow.



Hoyt chose to center their youth bow design on their TEC design riser – this technology alone is enough to let Mom, Dad and shooter know that they are getting a quality bow.

Metal stabilizer inserts are one of my favorite components on any bow and even more so on a youth bow where young hands could cross-thread a stabilizer mounting hole tapped directly into the magnesium.

**Limbs/Limb Pockets:** Hoyt continues with the adult-like bow design by

outfitting both models with pivoting limb pockets. However, this is where the Jr. and Sport models start to differ. While the over-all design on both is similar, the Sport's pockets are bigger in length, depth and width to accept and support its larger limbs. To compensate for increased weight that comes with the increased size, cutouts are machined into the pockets. One piece of the two-piece pocket adds a between-limb support structure plus a second connection point to the riser. Pockets on both are machined from an aluminum material and are black anodized.

Further distinction between the two models can be found in their limbs. The Sport, which offers max draw weights from 20 to 50 pounds, is equipped with ¾ inch split limbs that are approximately 12.75 inches long from end to end. The Trykon Jr. is outfitted with ½ inch split limbs, which also measure approximately 12.75 inches in length. Peak draw weight options range from 20 to 40 pounds on the Jr. Limbs on both bows are CNC machined from a fiberglass material and achieve a parallel position when at full draw. Hoyt dip finishes the cam limbs and paints the target limbs.

*So, what does all this mean to Mom, Dad and the shooter?*

Outfitting the Trykon Jr. and Trykon Sport with pivoting limb pockets is a good indicator that Hoyt is serious about providing young archers with a quality

shooting machine. It also equals great performance.

Whether your customer plans on stalking the wily groundhog or the trophies found at indoor ranges, you can offer them a finish that will not only suit their situation, but possibly their personality as well.

Moms and dads can rest assured that fiberglass limbs, which have been proven over and over again on adult bows, will stand the test of time and abuse.

Parallel limbs on a youth bow – great!

**Eccentrics:** Hoyt's Trykon Jr. has a hybrid eccentric system known as the Versa Cam & ½. Aptly named for its versatility the Versa offers 8 inches of draw length adjustment in 1-inch increments from 17 to 25 inches. This is all accomplished on one module and no bow press is needed to make the adjustment. Obviously the cornerstone of the Jr. - adjustment and versatility are exactly what most parents are looking for when investing their hard earned money on a

**Draw weights:** 20, 30, 40, 50 peak (Sport), 20, 30, 40 peak (Jr.)  
**Draw Lengths:** 23.5 to 28.5 inches modular (Sport)  
 17-25 inches all on one mod (Jr.)  
**Axle-to-axle length:** Approximately 29.5 inches  
**Brace Height:** Approximately 6-1/2 inches  
**Mass Weight:** 3.375 pounds  
**Let-off option:** 65 percent  
**Eccentrics:** Original Cam & ½ (Sport), Versa Cam & ½ (Jr.)  
**Advertised IBO speed:** 265 fps at 28/50 (Sport), 255 at 25/40 (Jr.)  
**Available hunting finish:** Realtree Hardwoods Green HD  
**Available target finish:** Red, Blue, Yellow, Pink and Black powder coat  
**Cable:** FUSE Custom – 33.25 inch control, 31.5 inch buss  
**String:** FUSE Custom – 46.75 inches  
**Grip:** Two-piece plastic  
**Riser:** Die-cast magnesium alloy in Tec design

child that may grow 2 inches by the time you are done setting up his/her bow! Another benefit Hoyt has engineered into the Versa Cam & ½ is a silky smooth draw. Most young archers aren't interested in a super aggressive draw cycle that squeezes out every last fps of arrow speed possible. The Trykon Sport has the original version of the Cam & ½ system, which is designed to draw smoothly and generate fast speeds. Draw lengths that range from 23 to 28.5 inches in ½ inch increments are available through a multi-modular system. Eccentric system let-off is 65 percent. Hoyt advertises a speed rating of 265 fps for the Sport set at a 28-inch draw and 50 pound peak weight.

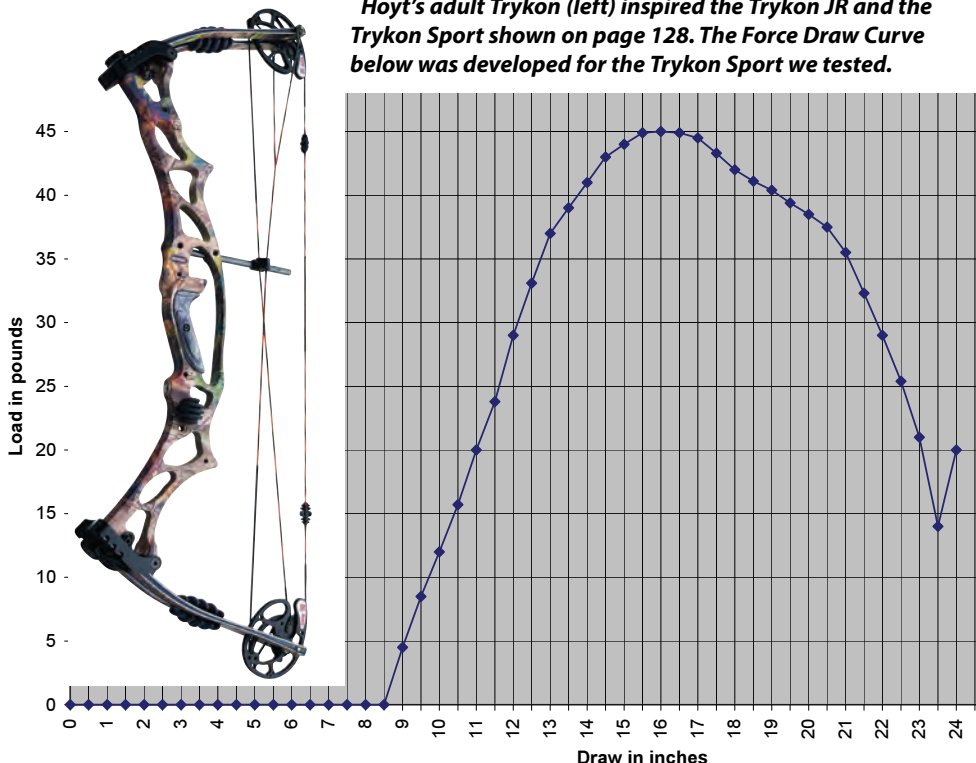
*So, what does all this mean to Mom, Dad and the shooter?*

Most every parent I have ever spoken to about purchasing a bow for their young archer has one main concern – will they grow out of it right away? Hoyt understands this and offers incredible versatility with their cam systems. For those shooting the Versa Cam & ½, there isn't even a need to upgrade modules! Although this may mean that you as a pro-shop will not see them very often in the short term there is a much better chance that they will still be shooting in ten years. Versatility is golden where youth bows are concerned!

These cams are not only versatile they also produce a pleasant draw cycle – more fun for the young archer.

**Silencing/Shock Reducing:** Both Trykon youth models feature AlphaShox and StringShox, which are made with Limbsaver's patented Navcom material.

**Hoyt's adult Trykon (left) inspired the Trykon JR and the Trykon Sport shown on page 128. The Force Draw Curve below was developed for the Trykon Sport we tested.**



The AlphaShox dampening pieces fit snugly between the split limbs while the StringShox, two each, are placed directly between the strands of the string. Also contributing to noise and vibration reduction is the parallel position of the limbs at full draw.

*So, what does all this mean to Mom, Dad and the shooter?*

The quieter the bow, the more enjoyable it is to shoot. Less vibration accomplishes the same thing.

**Strings/Cables:** Hoyt once again proves their commitment to provide young archers with the best by outfitting the Trykon Jr. & Sport with FUSE custom strings and cables. These strings and cables are constructed with premium materials and FUSE CTT (continuous tension technology), which means they are twisted and served under great loads to increase performance. Performance = No peep sight twist or creep.

Hoyt's use of their premium strings on these youth bow models is confirmation that they aren't cutting any corners! Quality down to the last detail.

### Testing

As with any other bow I first looked over the two Trykons inspecting for any flaws in fit, form or function. As with most die-cast parts the surface roughness is greater than that of a machined part, which results in a matt-like finish (at least for the camo). In my opinion it looks great! That is exactly how a camo finished hunting bow should look. There were multiple inclusions on the surface of the finish that appeared to be adhered during the drying process. Otherwise the bow was without flaw.

Both the Trykon Jr. and Trykon Sport were set to 23.5 inches in draw length and were equipped with a single brass nock and N.A.P. QuikTune 3000 arrow rest – nothing else was added to the bow. With the exception of these two items, every bow is tested unchanged - as it would be shipped to the dealer or customer.

Speed was measured on the Sport with the chronographs listed above. Three different draw weights, 40,45 and 50 pounds were tested with two arrows of different weights, 260 and 328 grains. This should give a broad picture of what can be expected from this bow in terms

of speed generated by various set-ups. Following are the resulting speed ratings for each in feet per second:

260-grain arrow: 40 pound draw

219.4

219.8

219.4

219.4

219.2

Average: 219.44

260-grain arrow: 45 pound draw

231.5

231.9

232.0

231.2

231.5

Average: 231.62

260-grain arrow: 50 pound draw

240.4

239.9

239.4

240.0

239.9

Average: 239.92 fps

328-grain arrow: 40 pound draw

197.6

197.2

197.5

197.5

197.4

Average: 197.44 fps

328-grain arrow: 45 pound draw

205.6

206.9

206.2

205.9

206.0

Average: 206.12 fps

328-grain arrow: 50 pound draw

217.5

217.5

217.2

217.9

217.6

Average: 217.54 fps

These are great speeds for a youth bow. As a quick reference I also tested the Trykon Jr. set at 30 pounds and a 23" draw length with the same two arrows. The Jr. launched the 260-grain arrow at 171.1 fps and the 328-grain arrow at 152.9 fps.

A force-draw curve was plotted for

the Trykon Sport (see page 129), which showed an exceptionally smooth draw cycle. A smooth draw holds great importance in a youth bow, as it will equate to more enjoyment.

In the area of shock and vibration the Trykon bows receive top grades. Equipped with parallel limbs both models had exceptionally little of either. This, of course, is another characteristic that will undoubtedly factor into the amount of fun a young archer has while shooting his/her rig. Shot noise followed suit as little noise was noted.

The opinions of my 10-year-old son, Michael, and 13-year-old daughter, Rachel, were requested on the feel of the bow at full draw (45 pounds). Both liked the feel of the grip and the light mass weight. And both thought the bow "looked cool"! The appearance of a bow cannot be overlooked for young archers – or for us slightly older participants for that matter!

My wife also had the chance to handle and shoot the Trykon Sport. She was quite impressed and thought it was far superior to her current bow. She will certainly be hitting me up for one now! My wife's take on this bow is an important point. I would not limit myself to selling this bow to young archers only – shorter draw men and women are going to love it as well.

I was impressed with the Trykon youth bows. They offer great performance characteristics, super versatility and appealing looks. The few blemishes in the finish of the test bows would most likely go unnoticed by the average person so if you run onto one like that I wouldn't be too concerned. When handling the Trykons you can sense that they are well balanced and see that they are made with quality. A huge selling point for these bows is their draw length and draw weight ranges and methods of adjustment – they will grow with your customer.

Hoyt is to be commended for investing in the diecast mold allowing it to built the Trykon JR and Trykon Sport models at such affordable prices. These same bows, if their risers were machined from aluminum like most adult Hoyt bows, might sell for 30 percent more and that would be enough to turn away many young archers.

