

By Pat Meitin

Special Purpose Carbon Shafts

There wasn't room in the September issue of ArrowTrade Magazine to pass along all the research I'd done into carbon arrows, so we'll wrap it up in this November issue. First we'll look at super heavy weight shafts, then those finished to appeal to traditional archers. Finally, we'll look at affordable youth arrows that are also a good choice for women shooting light weights and short draw lengths.

Heavy-weight arrows can be taken to extremes. When I bowhunted Cape buffalo in Zimbabwe, and when I built arrows for a buddy I was to film bowhunting elephant, I built arrows weighing 880 and 1,100 grains finished weight. These heavy weights helped produce 97 and 101 pounds of kinetic energy, respectively (both from 90-pound draw weight). I did this by juggling various weight tubes and components such as solid-steel inserts. Several super heavyweight arrows are offered today for such purposes, while assembling such custom-built arrows is not overly difficult with available materials.

Alaska Bowhunting Supply

The GrizzlyStik Safari is even heavier than the standard GrizzlyStik (see "Heavy-Weight Brutes" in the September issue for additional details on construction), averaging 15 grains per inch (gpi) along its tapered length, and providing finished weights between 650 and 850 grains. One arrow accommodates

draw weights from 55 to 100-plus pounds. They are a continuous-taper shaft with nail-tough carbon composite, woven-layer construction.

Carbon Express

Carbon Express Weight Tubes allows kinetic energy to be increased instantly in any arrow, without affecting spine. The tubes slide snugly inside the shaft and are held in place by the point insert and nock. They are offered in Red 2 gpi, or Yellow 3 gpi. Combined with a Terminator Hunter 6075, for instance, 14 gpi or 15 gpi shafts are easily assembled.

Carbon Force

CF Weight Tubes are like those from Carbon Express in every way and serve the same purpose, from boosting the weight on lighter carbons, to creating a super heavy weight arrow for the largest big game. They fit any shaft also accepting standard press-fit Super Nocks. I use them every year to add power to many lighter brands of carbon shafts.

The new Radial X Weave Black Mamba is presented as the ultimate arrow system for big game. It comes in 400 spine, with a .003 straightness tolerance, and weighing 9.2 gpi in raw form. They are sold with 12-gpi kinetic energy tubes, to instantly create a 580 to 625 grain shaft (before adding included stainless steel collars and inserts and point), or 21.2 gpi heavy-weight shaft perfect for a dangerous game.

Carbon Tech

With their whoppin' weight of 15.5 gpi and 70/95

spine rating, the CT Safari is made for tackling the biggest African or Alaskan game from the heaviest draw weights. Carbon Tech calls this the "Rhino Plus." The Safari includes seven wraps of various carbon layers for consistency, durability and integrity. This also makes it one of the toughest carbon arrows on the planet. It features a straightness tolerance of .005 inch.

Traditional Carbon

Interestingly, your traditional customers making the switch to carbon are most likely to choose heavier mass options. The tricky combination here is that the more moderate acceleration given by recurves and longbows do not demand the stiff deflection of even average compounds. In fact, typically only the lightest deflection ratings provide good flight from traditional rigs, even from draw weights with similar numbers. This provides an interesting combination of a 100, 150, 2940, 3050, 3555, or 35/60 — depending on brand — and a gpi weight of 8 to 10 gpi or more.

In many cases adding two or three gpi Carbon Express or Carbon Force weight tubes becomes the only viable option to achieve proper balance and weight, though exceptions do exist. I have taken to installing two-gpi, and three-gpi weight tubes in a single arrow, putting the heavier up front to boost F.O.C., the lighter behind to hold it forward and complete finished weight. Arrows assembled this way fly like darts. For those odd brands where tubes fit a tad loose and buzz or rattle in a bow quiver on release, add a dab of silicone to each end before installation to assure a better fit. Too, when carbons prove too stiffly-spined for traditional bows, heavier inserts or adapters, like Muzzy Product's 100-

Carbon Express sells flexible weight tubes in two sizes to boost the penetrating power of any conventional carbon shaft. The author sometimes combines the two sizes to vary FOC and dynamic spine.





Traditional shooters have embraced carbon shafts that have been given wood grain finishes and the proper weight and spine for recurves and longbows. These Traditional Hunter shafts from Gold Tip come in shaft sizes that approximate the bow weight ranges: 3555 (35-55), 5575 and 7595.

grain brass inserts or Precision Designed Products' all-steel broad-head adapters, can help an arrow flex more and fly straighter.

Alaskan Bowhunting Supply

With a finished weight from between 470 (Sitka) and 650 (Alaskan), and tapered design that improves F.O.C., flight, and penetration, GrizzlyStiks are the ultimate traditional shaft. They are made to drive deep into game, and for nothing else. (see "Heavy-Weight Brutes" and "Exceptional Heavy Weights" sections of September issue for more detailed information).

Arrow Dynamics

Nitro Stinger Traditional shafts not only offer a parallel-to-tapered design that guarantees better flight with big fixed-blade broadheads, better fletching clearance off the shelf, and increased F.O.C. for increased penetration, but a softer deflection to accommodate recurves and longbows. The Traditional weighs 11 gpi in a 300 deflection (perfect for 55- to 65-pound traditional bows or tip weights better than 150 grains), while the Traditional Light hits the scales at 9.3 gpi in a 350 deflection (perfect for 45- to 55-pound bows and 125- to 145-grain tips). This provides useable traditional weight without adding weight tubes or massive inserts.

Beman

A realistic wood grain finish means ICS Classic shafts look great in a traditional quiver. The 500 weighs 8.0 gpi, the 400 9.1 gpi, both good, usable weights with most recurve or longbows, though they

readily accept standard weight tubes for added kinetic energy (available from Carbon Express or Carbon Force). I've enjoyed the most luck with 500 spine. They fly like darts, and have proven extremely tough even while subjecting them to the punishment of stump shooting in rocky desert and small-game hunts, including nighttime bullfrogs near rip-rap-lined culverts. The 400 requires a recurve or longbow pulling more than 65 pounds, or points in excess of 170 grains, for tuning ease from the average traditional set-up

Blackhawk

Vapor ACA and V-Maxx Carbonwood shafts provide the realistic look of authentic wood shafting, but with the added durability, straightness and matched weight of modern carbon. I find the 2000 spine most useful, a bit light at 7 gpi, but brought up to acceptable specs by adding Carbon Express or Carbon Force two- or three-gpi weight tubes. In 3000 spine (8.7 gpi) a heavy-weight bow or 170-grain plus point is a must to assure good flight from traditional gear. The V-Maxx's lightest spine is 3000 (9.75 gpi), and requires similar conditions to assure top flight; though, the heavier spine assures added durability.

Carbon Express

Heritage shafts have a look that harkens back to the days of wood arrows, while providing useful carbon weight without the need to add weight tubes or excessively heavy points. The new 150 shaft weighs 10 gpi, the 250 11 gpi. I have found the 250 too stiff for my recurves, but free of wobbles from my longbow at the

same draw weights. The 150 should be the best choice for the majority of traditional archers wielding average draw and point weight. These shafts are tough as nails, with composite, BuffTuff construction and .005-inch straightness tolerances matched to 2 grains per dozen.

Interestingly, I've found Thunderstorm SE and Thunderstorm (high-end "kid arrows") perfect for a good number of my recurve bows. Spine ratings are quoted as 30 to 50 pounds, though, as I have pointed out carbon is normally quite stiff for traditional purposes. They weigh 8.6 and 8.3 gpi, the SE including a nifty Spider (web) Express BuffTuff graphic I think adds a great aesthetic touch. Both are pre-cut to 29 inches, and come with press-fit nock and screw-in inserts.

Carbon Tech

Nail-tough CT Rhino and Rhino XP, in 35/60 deflection, make an ideal traditional arrow at 9.5 gpi. I have tried 45/70s with little luck, even after adding considerable point weight. The 35/60 flies perfect from all my recurves and longbows (45 to 65 pounds at 30 inches), and point weights from

Continued on page 68

The Beman ICS Classic (right) sports a realistic wood grain finish and weighs 8 gpi in the lighter 500 spine.



At 12 grains per inch, the Heritage 350 size from Carbon Express should fit traditional bows in the 75-95 pound class.

Most customers will be interested in the 150 or 250 shaft sizes from the Flushing, Michigan manufacturer.

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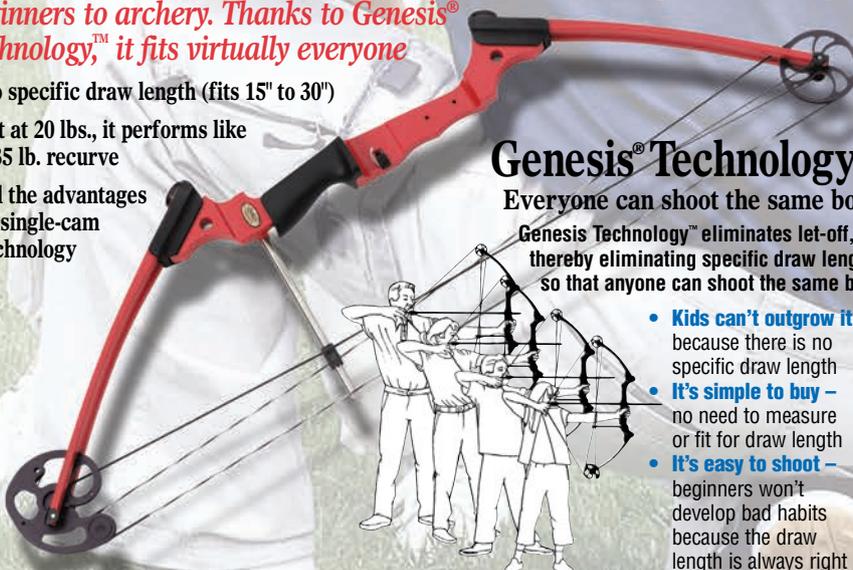
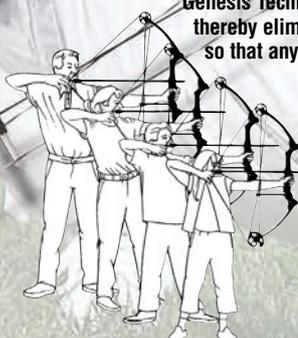
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Continued from page 64

tube and increase Kinetic energy when looking for additional penetration potential. The CT Whitetail in 35/55 weighs only 6.9 gpi, and is easily brought up to traditional specs by adding weight tubes.

Easton

It was love at first release when Easton introduced the Axis only a year ago. At 8.10 gpi in 500 deflection, and 8.95 in 400, they are well balanced for most traditional needs, proving flat shooting, and tough as nails, and offering exceptional penetration on game. The brand-new Axis Obsession offers increased KE potential with the added weight of PhotoFusion Mossy Oak Obsession camo graphics. The 500, for instance, offers a power-packed 8.9 gpi, and has shot well for me with points as widely varied in weight as 125 to 150 grains. The camouflaged C2 Realtree Hardwoods Green HD is another viable choice, hitting the scales at 8.02 and 9.12 in 500 and 400.

Gold Tip

The GT Traditional is another one of my recurve/longbow favorites, sporting a handsome and durable woodgrain finish and slightly heavier gpi numbers for increased kinetic energy in the same spine ratings as other Gold Tip shafts. Customers may choose between .003 and .006 straightness tolerances. The 3555, which shoots beautifully from all my traditional bows, weighs 8.6 gpi. They accept weight tubes without rattle or slop.

Youth/Woman's Carbon

Beman

The Carbon Flash is perfect for any youth who loves to play hard.

They are made from nearly-indestructible uni-directional carbon, with glue-on nocks and glue-in field points included. They are available in five sizes, weighing from 5.6 to 7.2 gpi, and covering draw weights from 25 to 45 pounds.

The new ICS Hunter Junior gives those with a draw weight of less than 40 pounds a high-quality option with specs equal to those of "grown-up" ICS Hunters. They come pre-cut 26 or 28 inches, and fletched with 3-inch vanes.

Carbon Express

Thunderstorm SE arrows look so cool I wish they made them in adult spines and weights. They are made for bows of 30 to 50 pounds, are sold pre-cut to 29 inches, and include Carbon Express BuffTuff construction to make them strong and consistent. They also include eye-grabbing spider-web graphics finish front to rear. The Thunderstorm is a more economical option that weighs slightly less (8.3 gpi), but offers similar features and specs. These are an "advanced" youth arrow made for more accomplished shooters.

The Thunder Express Youth Arrow is an entry-level black fiberglass arrow for use in bows up to 35 pounds. They are fletched with three-inch vanes and include nocks and milled point, in cut lengths from 24 to 28 inches.

Carbon Impact

Carbon Youth shafts give kids grown-up features in a lighter spine made for 10- to 50-pound bows and shorter draw lengths. They are fast, strong, and easy to tune. They come in two spines and are equipped with standard press-fit nocks and screw-in inserts, or glue-in field points. The 3500 is 26 inches long, the 5500 28

inches. The new Super Club is a mid-level arrow for all shooters. It comes five spines – 10/20, 15/25, 20/30 (10 to 35 pounds), for recurve shooters, and 30/40 and 40/50 (30 to 55 pounds) for compounds.

Carbon Force

Desperado Youth Arrows are a rugged carbon arrow made for a maximum peak draw weight of 50 pounds, with a .520 deflection rating. They come already fletched, and weigh 6.3 gpi.

Easton Technical Products

Easton recently entered the youth carbon-arrow market with the Trooper and Carbon Connekt. The Trooper is a simple but rugged arrow with over-nock and steel sleeve point. The Carbon Connekt offers the tunability of Super Nock and CB insert. They are offered in 26- or 28-inch lengths, both using 3-inch vanes.

Gold Tip

Turn your kids loose with GT's Youth Falcon 35 knowing these arrows can endure all the punishment kids are capable of. They offer .006 straightness and are perfect for low draw weights and short draw lengths. They are tough enough that a petite girlfriend of mine once successfully tagged a 150-pound wild boar with a Falcon 35 and 75-grain broadhead launched from a 45-pound compound.

The Youth Lightning comes fully assembled and ready to shoot with nocks and glue-in target points. They boast Gold Tip durability, perfect for camps and youth groups, and are each individually bar-coded for single-arrow resale to kids with lawn-mowing cash. ←

