Take-Down recurve bows with metal risers are not a newfangled thing of nowadays, they've already been popular in the late sixties and early seventies. In those days, bow companies like Bear, Hoyt, Groves, Carrol, Wing and Black Widow, just to name a few, manufactured high end metal riser bows and shooters loved them for their non-flexing properties and their adjustability. When the compound bow came along, traditional bow sales were on the downhill slope and many bow manufacturers were forced to close their shop doors. When traditional bows reemerged on the scene in the eighties, the risers of the take-down models were made of multi-laminated wood or wood and glass, probably to distance them further from the market dominating compound bows with metal risers. In recent years, Bob Gordon created a bow type called the "Warf Bow" by adapting readily available competition limbs to metal risers, that mostly came from older compound bows. Inspired by this idea, David Soza created and machined his own riser along the geometry lines of Earl Hoyt's bows. The result was a 17" riser, that was marketed as the DAS Kinetic Master riser. With the fast growing requests for that riser, David had to streamline the manufacturing process and had to look for a partner to take care of sales and distribution. He teamed up with 3 Rivers Archery and started manufacturing a riser similar to the Master riser, that is marketed exclusively through 3 Rivers Archery and is named Dalaa, meaning number one in Apache language. The recurved limbs for the Dalaa risers are competition limbs and are manufactured by a reputable bow company in Korea. They get checked by David for precision and weight tolerance, before they receive their camo film dip, to make them more suitable for hunting. Due to customer requests, the reviewed, longer 21" riser was added to the Dalaa bow line. Compared to custom recurve bows with multi-laminated wooden risers, the metal riser Dalaa Recurve bow may not be as eye pleasing to everybody. But it can offer the performance, the adjustments and the fine tuning abilities of a competition bow in a rock solid hunting bow platform. It's all a matter of personal preference.

**Reviewed Bow**

**Model:** Dalaa T/D recurvebow, 64", 53 lbs @ 28"

**Manufacturer**

DAS Kinetics for
3 Rivers Archery
P.O. Box 517
Ashley, IN 46705
www.3riversarchery.com
Price: $938.94

**Riser**

Length: 20 9/16 inches from limb mounting pad to limb mounting pad

Material: The main body of the Dalaa riser is CNC machined from a single billet of 6061-T6 aluminum alloy. Black anodized limb mounting pads, machined from the same high grade aluminum alloy, are attached to both ends of the riser with flat head socket cap screws
and alignment dowel pins. A layer of a rubbery, synthetic material is glued to each mounting pad to keep limb vibrations away from the riser and to cut down the noise, generated by the string. The following accessory mounting holes are drilled and tapped into the riser: stabilizer (5/16”x24), arrow rest or plunger button (2 x 5/16”x24) and sight or fishing reel (4 x 10-24”), which can be mounted in two different positions. The arrow rest set-up can be as simple or as sophisticated, as you like it. You can either shoot off the built-in shelf ramp and use the adjustable and lockable strike button to set your center-shot or you can mount an elevated arrow rest with or without a plunger button by using the other mounting hole. The dual density grip, made from a hard synthetic material, features a soft overlay on the heel, right below the push point. The grip is bolted to the riser with two screws, so it can be swapped easily. Three different grip shapes are available to accommodate the shooter’s preferred hand position. The riser is film dipped in the “Natural Gear” camo pattern which sports a grayish, tan base color, light brown blotches and dark gray, almost black, differently shaped spots and lines. The camo film dip gives the bow a flat finish, that doesn’t reflect any light.

Shape: slightly deflexed
Grip: medium, dual density poly grip especially made by Jaeger Archery
Center Cut: Cut to 11/32 inches past center
Sight Window: The sight window measures six inches from the upper edge of the cut-out to the top of the shelf ramp.
Distance from pivot Point to shelf ramp: one inch (from deepest part of grip to shelf ramp surface)
Physical weight: 3 lbs 7 oz (complete 64” bow)

Take-Down System: The Take-Down system of the Dalaa differs somewhat from more conventional systems, since the limbs are not rigidly fastened onto the riser. A thumb screw in the limb mounting pad, that screws into a brass bushing in the limb butt, holds the limb on the riser. A fraction of that bushing protrudes over the limb's surface and fits into a slot in the mounting pad to act as a part of the limb alignment system. The other part is a brass sleeve around the limb bolt, which fits snugly into the slotted limb butt to align the front end of the limb. Since the mounting surface of the limb is somewhat curved, the limb can pivot on the riser to a certain extent, when no string is installed. When a string is put on the bow, the slotted limb butt will be sliding all way up on the sleeved limb bolt until it hits the washer and bezel. Tightening or loosening the limb bolts will consequently change the angle of the limbs in relation to the riser and can be used to change tiller, preload and draw weight. The limb adjustments are secured with set screws that lock down the limb bolts in their current settings.

Limbs

Bow Length: 64 inches
Draw Weight: 53 lbs @ 28 inches (A.M.O.)
Brace Height: 7 1/4 inches –7 3/4 inches
Shape: Recurved limbs with a rectangular cross-section.
Material: Two tapered layers of hard rock maple are bonded together to form the limb core. A thin layer of carbon laminate in combination with a thin outer layer of glass, to protect the carbon fibers against nicks and cuts, are then glued to both sides of the limb core. The limb wedge is ground from black micarta and inserted between the maple layers. Overlays from black micarta reinforce the limb butts on the back and the belly side. Black micarta is also used for the limb tip overlays, so the limbs can safely be shot with today’s high performance strings.

Limb width: 1 9/16 inches at the fade-outs and 11/16 inches just below the string groove.
String: A silenced, endless loop, high performance string from 14 strands of BCY 8125 is supplied with the bow. All strings made from low stretch string material, like Fast Flight, D-75, BCY 452, TS-1, Dynaflite 97 etc. can be used on the Dalaa.

Finish: The limbs are completely covered with a film dip in the "Natural Gear" camo pattern. Only the structure of the micarta overlays, on the belly side of the limb butts, can still be seen under their original clear coat.

Ordering Options

The Dalaa is available with two different riser lengths. The 17" riser can be used to make a 58", 60" or 62" bow and the 21" riser will make a 62", 64" or 66" bow, depending on the limb length that is used. Both risers can be ordered in a left or right hand version. The 17" riser Dalaa can be ordered in draw weights from 30 to 60 lbs and the 21" riser Dalaa can be ordered in draw weights from 30 to 55 lbs. A medium, high or low grip configuration can be achieved with three different, interchangeable poly grips.

Testing Parameters

A force-draw curve was obtained from the reviewed bow, using a digital force gauge with a resolution of 0.1 lbs. Measured bow weight was rounded to the next half pound. The different arrow speeds were achieved with the bow shot from a shooting machine with a mechanical release and with finger release, using a "Crick-It" clicker and a deerskin glove. The string was pulled to 28 inches A.M.O. that is 26 1/4 inches from the string to the deepest point of the grip. The (3) arrows for the speed testing had a weight of 9 grains per pound of measured (not stated) draw weight. A 16-strand Fast-Flight string without any attachments (silencers, etc.) was used. Speed measurements were taken 3 feet in front of the back of the bow with two chronographs set up in a tandem configuration. Each arrow was shot a minimum of 6 times and overall achieved speeds were rounded to the next whole digit.

Test Results

- Draw weight: 53 lbs @ 28"
- Stored energy: 48.89 ft-lbs
- Stored energy per pound of draw weight: 0.92 ft-lbs/lbs
- Arrow weight: 476 grains
- Arrow speed: 194 fps with mechanical release
- Kinetic energy: 39.79 ft-lbs
- Efficiency: 81.4 %  (Kinetic energy / stored energy)
- Arrow Speed: 189 fps with finger release

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