ATA Bow Technician Certification

Glossary of Terms

Term	Definition
1st Axis Leveling	Leveling of the sight mounting bracket (or sight frame) in relation to the bow's riser. Generally accomplished by adding shims between mounting bracket and riser or using adjustment screws on sights so equipped.
2nd Axis Leveling	Leveling of the sight's scope or sight housing in relation to the bow's riser. This may be accomplished by moving the scope, sight housing or sight level clockwise or counterclockwise. Very basic sights may not allow independent 1st and 2nd axis leveling.
3rd Axis Leveling	Adjusting the scope to a position perpendicular to the sight bar/mount so that the sight's bubble remains in the middle of the level when the bow is aimed at an angle of 45 degrees upward and downward. This allows the archer to use the sight level for reference when shooting uphill and downhill shots. A sight must be equipped with a 3rd axis leveling adjustment screw in order to complete this task.
Advance Cam	Adjusting the rotation of the cam so that the draw stop touches the limb or cable sooner in the draw cycle. This can be accomplished by removing twists from the cable attached to the cam.
Anchor Point	A physical feature on the archer's body (usually the face) where the bow draw hand and/or the bowstring make contact. Having a consistent point of reference provides a more accurate and repeatable shot.
Arrow & String Level	Bubble levels that attach to the arrow shaft and the bow string that can be used as a reference when setting the nock height on a bow.
Arrow Length	Measured from the throat (point where bow string rests) of the nock to the end of the carbon or aluminum shaft. This measurement does not include any insert or other arrow component.
Arrow Rest Mounting Hole (Berger Hole)	Threaded hole (5/16"-24) in the riser where the arrow rest attaches to the bow. Can also be used as a point of reference when setting arrow rest height.
Arrow Spine	The deflection of the arrow shaft, measured in inches, in a three-point load test where a specific mass is applied to the midpoint of the arrow shaft supported at a fixed span.
Axle to Axle	Measurement from the center of the top axle to the center of the bottom axle when the bow is at brace height.
Backserve	Method of starting and ending wrapping of serving around the bowstring where the serving material is wrapped over itself to ensure the serving wrap stays in place.

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Blade Rest	Arrow rest consisting of a mounting bracket and a flexible launcher arm generally made of spring steel. This style rest is usually used on a target shooting bow setup as it allows for repeatability and forgiveness, but does not provide containment.
Bow Square	Tuning tool used to locate nocking point on the bowstring as well as measuring brace height and tiller. Clips to the bowstring to provide measurements in relation to the arrow rest.
Bow String	The string or cord that spans an archery bow from cam to cam and holds the bow to its braced position. The bowstring is used to engage the rear end of the arrow in order to launch the arrow into flight.
Bow Vise	Fixture that allows a bow to be held in a fixed position while tuning or service tasks are completed. Generally holds the bow by a clamping mechanism on the bottom limb.
Brace Height	The dimension in inches from the pivot point (low point) of the grip to the nearest side of the bowstring, measured perpendicular to the bowstring with the bow strung and in the undrawn position.
Buss Cable (Split Cable)	Cable with a split yoke on one end and single loop on the other end. Attaches to the axle of the top limb and the bottom cam. Moves downward during the draw cycle.
Cable Driven Rest	Drop away arrow rest that is activated by the movement of the bow limb. Generally held in the downward position by attaching a cord from the limb to the launcher. Drawing the bow allows the rest to raise arrow into position. Rest drops away as bow is fired and tension is reapplied to the cord by the bow limb.
Cable Guard	Mechanism by which the bow's cables are held to the side so that the arrow's fletching does not contact the cables during the shooting process. May be rigid or flexible and constructed of carbon or metal. Often equipped with a plastic slide or roller mechanism to reduce friction.
Cam	Rotating piece of the mechanical system used to draw a compound bow. Connected to the bow limbs by an axle that goes through the cam at a point slightly off from the center point.
Center Shot	Horizontal position of the arrow rest where the path of the bow string perfectly bisects the arrow shaft when the bow is shot.
Compound Bow	A handheld device for propelling an arrow with the following components: a centrally located handle/grip, a set of limbs, and a string system directly attached to a method of applying mechanical advantage (cam/wheel) to draw the bow.
Containment Rest	Arrow rest that uses brushes, arms, or other materials to keep the arrow shaft within the rest when the bow is not in a perfectly vertical position.
Control Cable	Cable with one loop on each end that connects the top and bottom cam with the purpose of keeping cams rotating in sync with one another.

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D-Loop	Short length of flexible cord tied to the bowstring. Serves to locate a consistent nocking point for the arrow and provides a means to connect a mechanical release aid to the bow string that is secure yet does not induce additional torque to the system.
Draw Length	Measured from the string nocking point location to a vertical line through the pivot point of the bow grip and then adding 1 ¾" to the measurement.
Draw Stop	Round or flat surface positioned on the bow's cam that contacts the bow limb or cable so as to stop rotation of the cam when the bow reaches the set draw length.
Draw Weight	Peak force, measured in pounds, required to draw the bow from brace to full draw position when a scale is attached to the bow string at or near the proper nocking point location. Device contacting the string should be round or radiuses section measuring 1/8".
Drop Away Rest	Arrow rest designed to hold the arrow at the proper shooting position while at full draw, but drop away from the row shaft shortly after the string is released. This allows the arrow shaft and fletching to continue on a straight path toward the target without further contact of the rest. Generally the rest is actuated by a cord connected to the bow's cable or limb.
Hybrid Cam	Cam system which utilizes two eccentric cams that are not identical to one another in shape or size. Bows with hybrid cam systems will use (1) bow string, (1) split cable, and (1) straight/control cable.
Idler Wheel	Round wheel attached to the top limb on a bow with a single cam system. The idler wheel serves as a pulley over which the bow string travels around while connected on both ends to the bottom cam.
Limb	Component of the bow that's function is to store energy when the bow is drawn by flexing. Upon releasing the string, limbs quickly return to their original position and transfer energy into the arrow via the bow string.
Limb Driven Rest	Drop away style arrow rest that is actuated by a cord attached to the tip of the bow's limb. The rest is generally in the down position when the bow is at brace and raises up during the draw cycle as the limb tips move inward and tension is relieved from the cord. On the shot, tension returns to the cord and the rest moves quickly downward to allow the arrow and fletching to move in a straight path to the target without further contact.
Limb Pocket	Mechanism used to secure the limbs to the bow riser. The limb pocket is also where the draw weight adjustment bolts are located.

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Nock Height	Measurement of the point at which the arrow is nocked on the bowstring in relation to the point perpendicular (90 degrees) to the arrow rest. The same point of reference should be used at the arrow rest and the bow string (Ex: If using a bow square, the bottom of the square represents the bottom of the arrow shaft, therefore the bottom of the arrow nock should be used as reference on the bow string when setting to a certain nock height). Note: The measurement scale on each bow square may not be the same. Understand the reference marks before using this tool.
Paper Tuning	Process by which the bow is tuned shooting through a piece of paper held within a fixture between the archer and a target. The orientation of the tear through paper indicates whether the arrow is leaving the bow in a straight path to the target. This method is suitable for an initial tune, but can be influenced by archer form.
Paper Tuning Fixture	Free standing or wall mounted frame that holds a piece of paper taut so that an arrow can be shot through it during the tuning process.
Peep Height	Positioned of the peep site in the bow string. Usually measured from the top of the d-loop to the center of the peep. This position must be adjusted for each archer to ensure the sight housing can be seen through the peep without obstruction.
Peep Sight	Aperture secured into the bowstring through which the archer views the front sight housing. Serves as a secondary point of reference to increase consistency.
Retard Cam	Adjusting the rotation of the cam so that the draw stop touches the limb or cable later in the draw cycle. This can be accomplished by adding twists from the cable attached to the cam.
Riser	Centrally located handle/grip portion of the bow to which limb pockets, arrow rest, sight, and cable guard are mounted.
Scope	Round housing which holds the sight pin or lens portion of the bow sight. Can be adjusted independently of the sight bar and may also include a bubble level.
Serving	Braided thread which is wrapped around bowstring material to create end loops, protect string where it contacts cams, and allow secure attachment of d-loop and arrow nock. Also used in smaller pieces to attach accessories such as a peep sight and arrow rest cord to the bow string or cable.
Serving Jig	Tool which holds a spool of serving material so that it can be continuously wrapped around the bow string. Adjustable tension allows the user to determine how tightly the material is wrapped.
Side Bar	Stabilizer that is mounted in a manner that puts the weight to the side and rear of the bow to aid in stability and counter the added weight of accessories mounted to the opposite side of the bow riser.

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Sight	Aiming device attached to the bow. May have one or multiple aiming points.
Sight Bar	Refers to the vertical portion of an adjustable sight on which the scope travels upward and downward.
Single Cam	Cam system which utilizes a bottom cam and a top round idler wheel.
Stabilizer	Weighted bar attached to the bow riser by a threaded hole, designed to minimize movement while aiming.
String Stretcher	Fixture with hooks on each end, used to put a bow string or cable under tension for the purpose of measuring or installing serving.
Tiller	Measurement from the bow limb at the limb pocket 90 degrees to the front of the bowstring. May be denoted as a positive or negative fraction calculated by taking top measurement minus bottom measurement.
Twin Cam	Bow cam system consisting of two identical cams. Each cam is attached to the opposite limb with a split cable.
V-Bar	System of two side bar stabilizers (one on each side) attached to the bow riser at a single point.