ON TOP OF THE WORLD

ARCHERY CLUB

Recurve Barebow (RBB) and Olympic Recurve Class

Course Instructor

Mark D'Addario

- Highly Experienced Archer (40 Yrs)
- Current Board VP (3 Yrs)
- Connecticut Bow Hunter Instructor
- Board Member of N. Guilford Archers
- One of the Original Founders of OAC!
- OAC Vice President (3 Yrs)
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Clarify “Recurve”

- 'Recurve' is a competition class
- Olympic Recurve
- Recurve is RBB + Recurve Class equipment
- Recurve Bare Bow is also competition class
- Bare Recurve Bow with restrictions
- Recurve will mean Olympic Recurve
- RBB will mean Recurve Bare Bow

Out of the Box

- Most RBB are 3 piece – Riser & Limbs
- Riser – 25” standard (23”, 27”)
- Bolt pattern = 5”
- ILF Limbs - International Limb Fitting
  - Short (23”), Medium(24”), Long(25”)
- Bow String – match to bow length

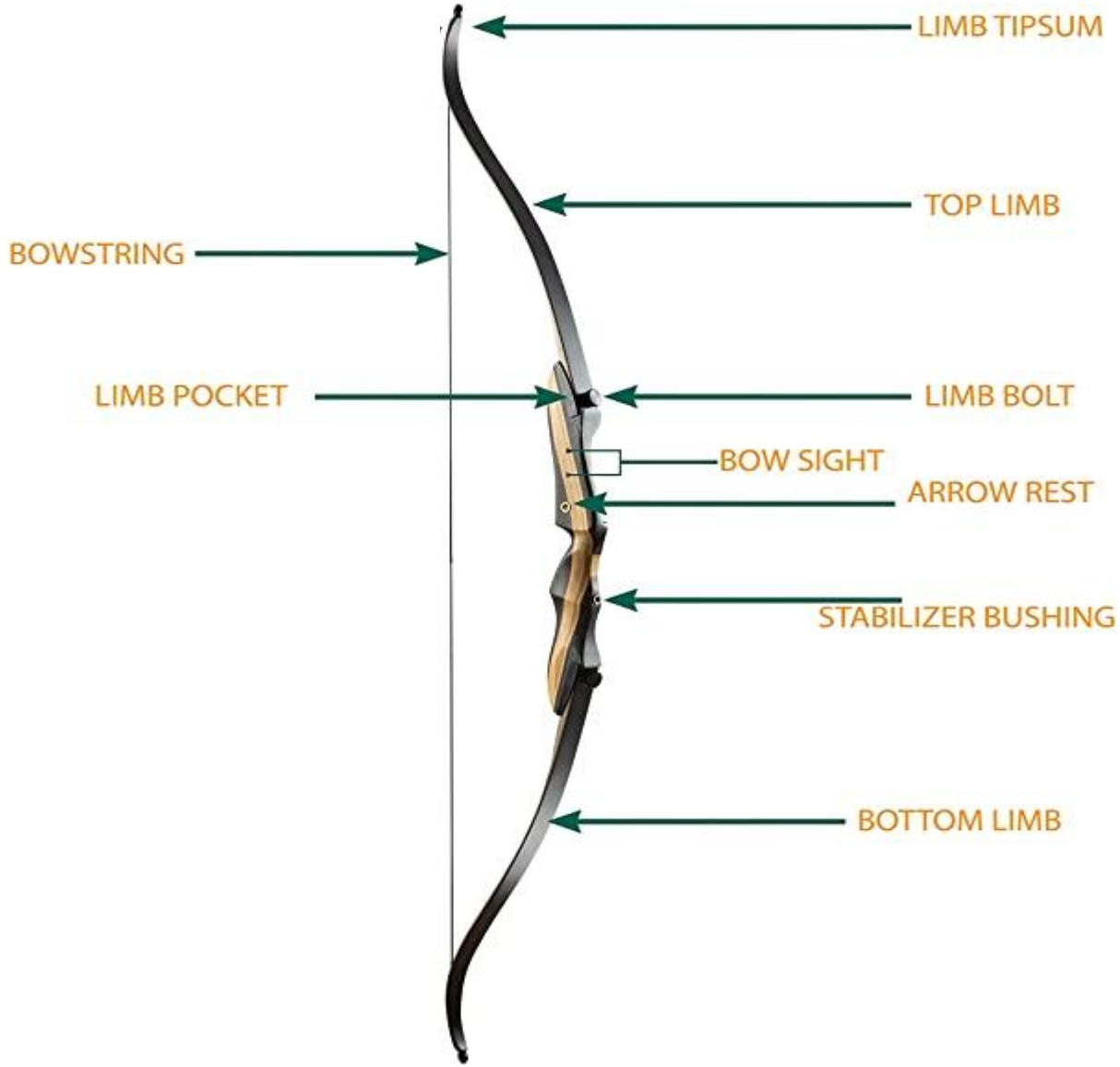
RBB Riser

RBB ILF Limbs

Recurve ILF Limb Materials

- Wood
- Foam
- Fiberglass
- Carbon
- Bamboo
- Frequently laminated with multiple materials
- Cost differences due to material, quality, price

Recurve Bare Bow (RBB)



Recurve Bow Size

- Bow size based on Draw Length
- DL = Span / 2.5
  - Example: 68” / 2.5 = 27.2” Draw Length

- Use a sizing Chart

Bow Size Chart

Draw Length		Bow Length
14 to 16 inches	→	48 inches
17 to 20 inches	→	54 inches
20 to 22 inches	→	58 inches
22 to 24 inches	→	62 inches
24 to 26 inches	→	64 to 66 inches
26 to 28 inches	→	66 to 68 inches
28 to 30 inches	→	68 to 70 inches
31 inches or more	→	70 to 72 inches

Bow lengths with I.L.F. Limbs

Riser Length	Extra Short	Short	Medium	Long	Extra Long
13"	52"	54"	56"	58"	60"
15"	54"	56"	58"	60"	62"
17"	56"	58"	60"	62"	64"
19"	58"	60"	62"	64"	66"
21"	60"	62"	64"	66"	68"
23"	62"	64"	66"	68"	70"
25"	64"	66"	68"	70"	72"
27"	66"	68"	70"	72"	74"

*NOTE: To determine Length of riser, measure from center of limb bolt to to center of limb bolt, then add 5".

Choosing Draw Weight

- Draw Weight Charts – (not recommended)
- Draw and hold poundage for 30-45 seconds
- Target archery – no more than 40 lbs.
- Target archers shoot lots of arrows
- Approx 32 lbs. needed to get to 60 yds

Draw Weight Chart

		Draw Weight
Very Small Child	55-70 lbs. (25-30Kg)	**10-15 lbs.**
Small Child	70-100 lbs. (30-45Kg)	**15-25 lbs.**
Large Child/Small Woman	100-130 lbs. (45-60Kg)	**25-35 lbs.**
Youth/Medium Women	130-165 lbs. (60-75Kg)	**30-45 lbs.**
Small Frame Men	120-150 lbs. (55-70Kg)	**45-55 lbs.**
Large Frame Women	165+ lbs. (75+ Kg)	**45-55 lbs.**
Medium Frame Men	150-185 lbs. (70-85 Kg)	**55-65 lbs.**
Large Fram Men	180+ lbs. (85+ Kg)	**65-75 lbs.**

Initial Setup

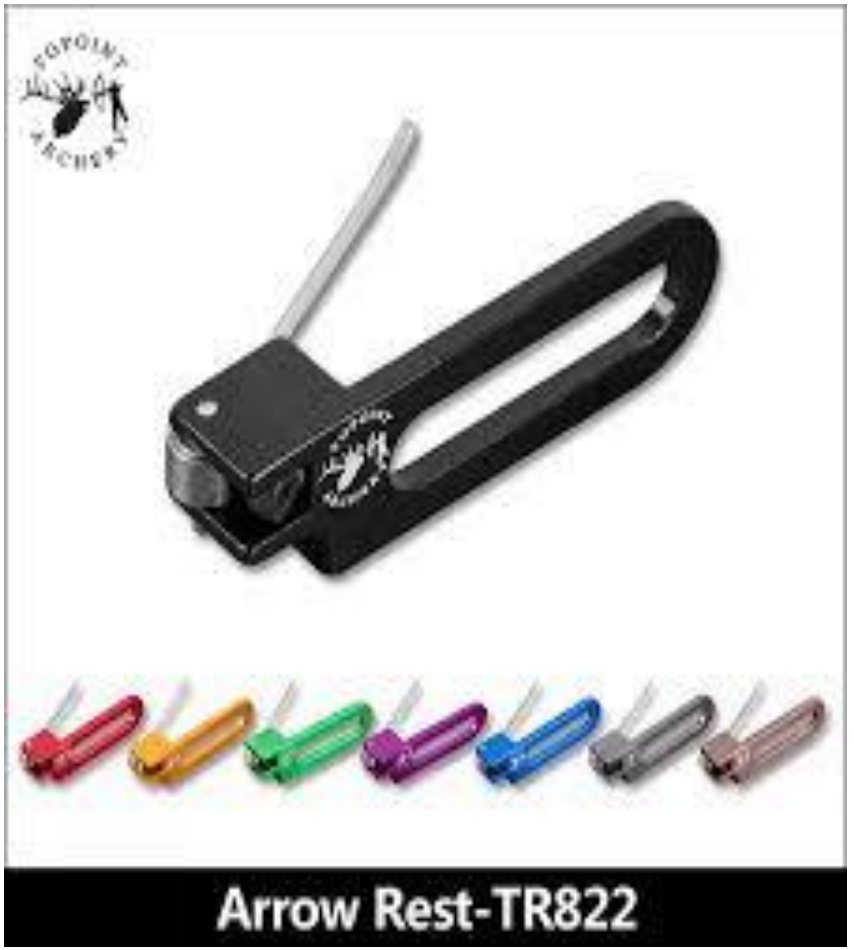
- String the Bow
- Attach Arrow Rest
  - Stick on, Wrap around preferred
- Attach Plunger
  - To promote consistent arrow flight
- Set a Nock point
  - 3/8” above center

Adjustability

- Plunger
- Arrow Rest
- String Twist
- Limblock
- Limb Bolts

String The Bow

Arrow Rests



Plunger

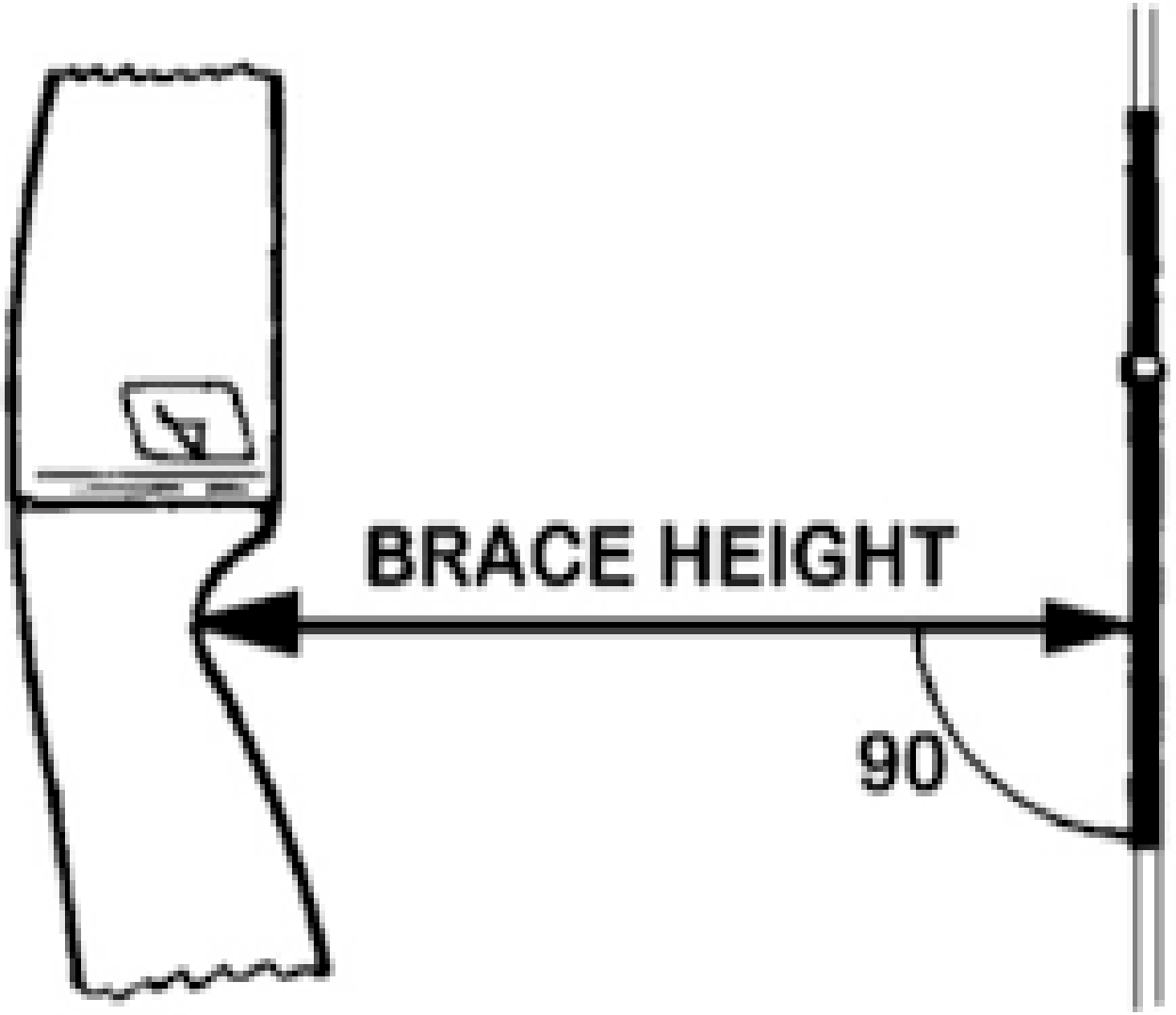
Nock Point

Initial Adjustments

- Some initial adjustments are needed
- Adjust Brace Height to Specs
  - Twists in Bow String to adjust
- Plunger Tension / Position
- Arrow Rest Center Shot
- Arrow Rest 'wire'
- Brace Height

Adjust Brace Height

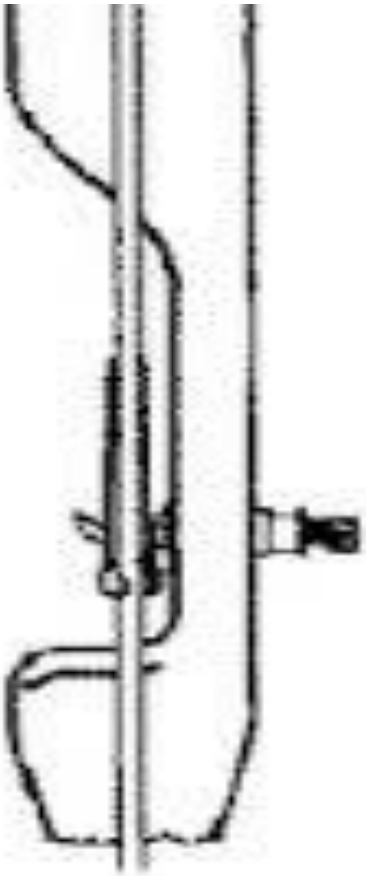
Brace Height



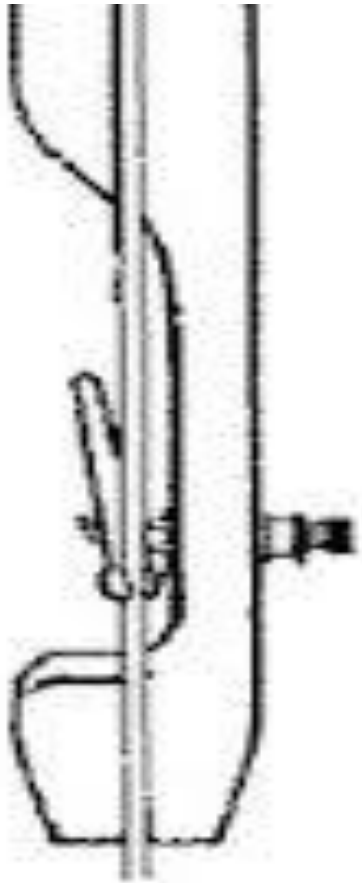
Plunger Adjustment

- Sets 'Center Shot'
- Controls Lateral 'flex' of the arrow
- Adjustable 'spring tension'
- Moves arrow left / right

Center Shot



Full centre-shot.

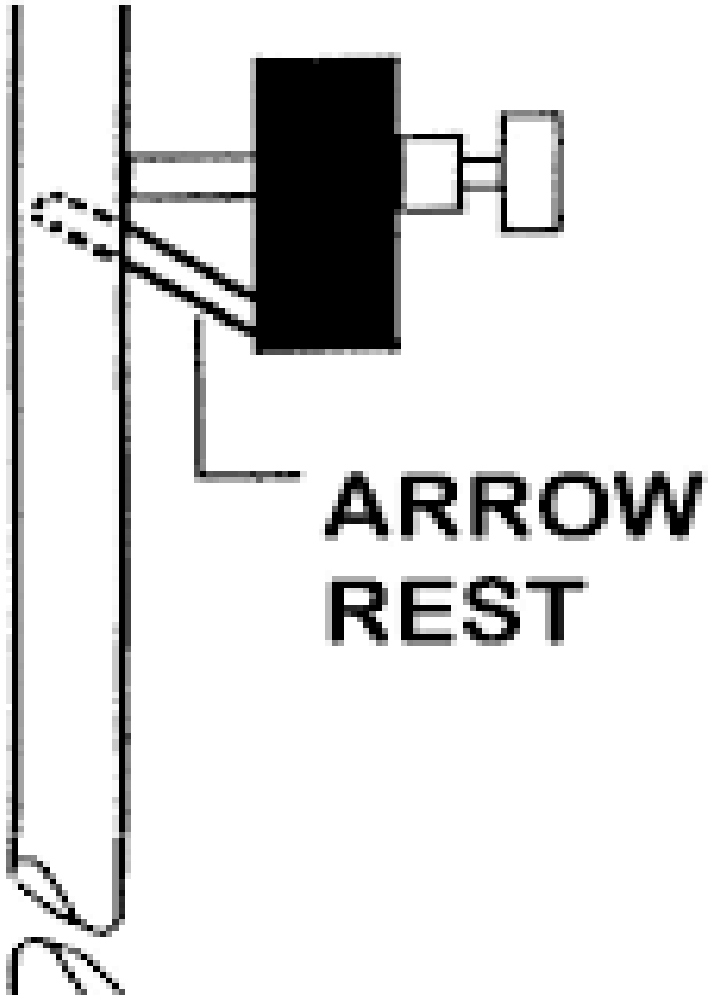


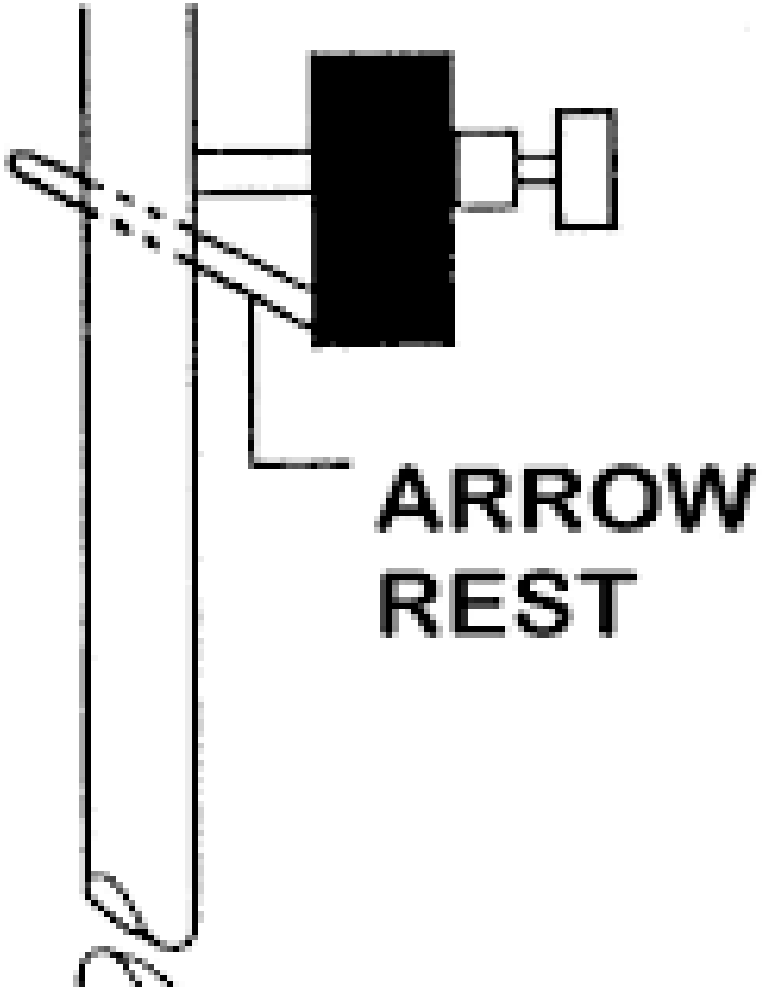
Outside centre-shot.

Arrow Rest Adjustment

- Up / Down adjustment of arrow height
  - Arrow to center of Plunger button
- Should 'cradle' arrow with minimal contact

Rest Adjustment



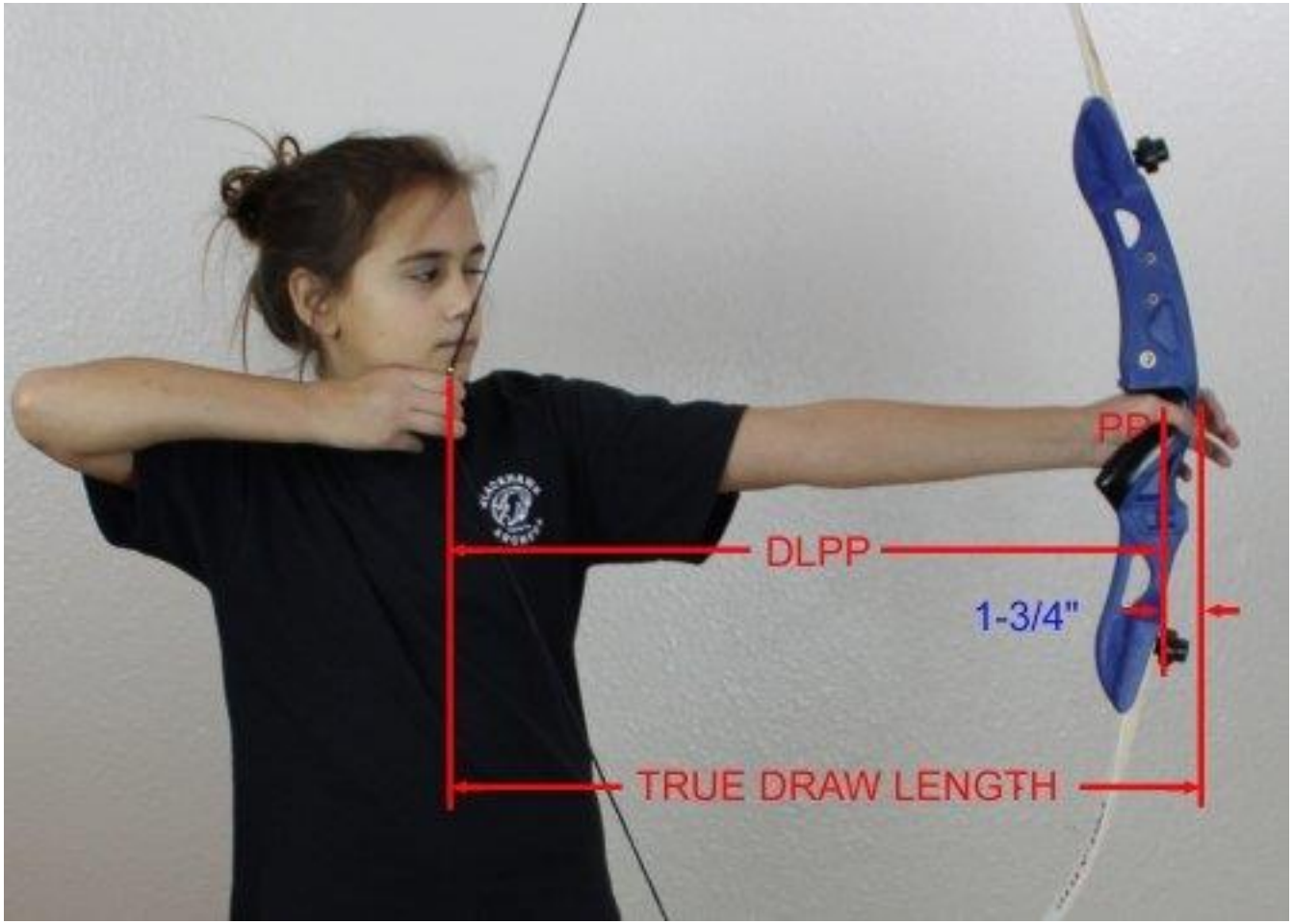


Selecting Arrows

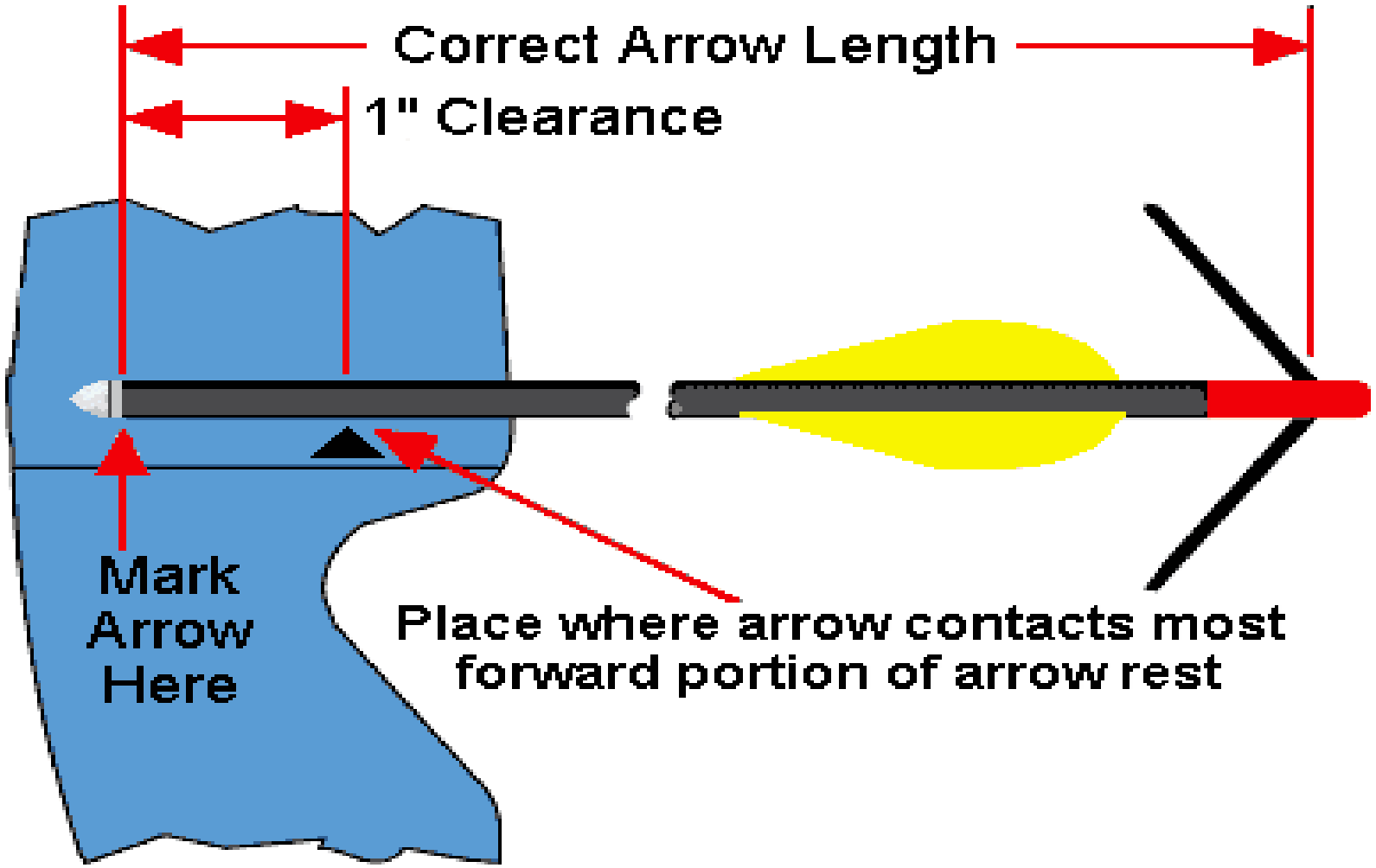
- Proper Arrows before Tuning

- Overview of selecting correct arrows
  - Correct Length
  - Correct Spine

True Draw Length



Arrow Length



Arrow Length Comments

- New shooters tend to cut their arrows too soon
- Anchor points may lengthen as you get some experience
- Anchor point can easily move from corner of mouth to back of chin over time
- You don’t want to be left with short arrows
- Suggest you leave at least 1.5” out in front of riser after shooting a minimum of 100 arrows at full length

Arrow Length & Spine

- Choose a proper length arrow
  - Draw Length + 1” (Minimum)
- Use an 'Arrow Chart' to select correct spine
  - Length of Arrow NOT draw length

ARROW SELECTION

COMPOUND BOW – Release Aid Calculated Peak Bow Weight–lbs

YOUR ARROW LENGTH FOR TARGET • FIELD • 3D

RECURVE BOW

Bow Rating - up to 275 FPS	Bow Rating - 276–300 FPS	Bow Rating - 301–320 FPS	Bow Rating - 321–340 FPS	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	Bow Weight–lbs. - Finger Release
29–35 lbs. (13.2–15.9 kg)				00	01	02	03	T1	T2	T3				21–27 lbs. (9.5–12.2 kg)
35–40 lbs. (15.9–18.1 kg)	29–35 lbs. (13.2–15.9 kg)			01	02	03	T1	T2	T3	T4	T5			27–32lbs. (12.2–14.5 kg)
40–45 lbs. (18.1–20.4 kg)	35–40 lbs. (15.9–18.1 kg)	29–35 lbs. (13.2–15.9 kg)		02	03	T1	T2	T3	T4	T5	T6	T7		32–36 lbs. (14.5–16.3 kg)
45–50 lbs. (20.4–22.7 kg)	40–45 lbs (18.1–20.4 kg)	35–40 lbs. (15.9–18.1 kg)		03	T1	T2	T3	T4	T5	T6	T7	T8	T9	36–40 lbs. (16.3–18.1 kg)
50–55 lbs. (22.7–24.9 kg)	45–50 lbs. (20.4–22.7 kg)	40–45 lbs. (18.1–20.4 kg)	35–40 lbs. (15.9–18.1 kg)	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	40–44 lbs (18.1–20.0 kg)
55–60 lbs (24.9–27.2 kg)	50–55 lbs. (22.7–24.9 kg)	45–50 lbs. (20.4–22.7 kg)	40–45 lbs. (18.1–20.4 kg)	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	44–48 lbs. (20.0–21.8 kg)
60–65 lbs. (27.2–29.5 kg)	55–60 lbs. (24.9–27.2 kg)	50–55 lbs. (22.7–24.9 kg)	45–50 lbs. (20.4–22.7 kg)	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	48–52 lbs (21.8–23.6 kg)
65–70 lbs (29.5–31.8 kg)	60–65 lbs. (27.2–29.5 kg)	55–60 lbs. (24.9–27.2 kg)	50–55 lbs. (22.7–24.9 kg)	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	53–57 lbs (24.0–25.9 kg)
70–76 lbs. (31.8–34.5 kg)	65–70 lbs. (29.5–31.8 kg)	60–65 lbs. (27.2–29.5 kg)	55–60 lbs. (24.9–27.2 kg)	T5	T6	T7	T8	T9	T10	T11	T12	T13	T13	58–62 lbs. (26.3–28.1 kg)
76–82 lbs (34.5–37.2 kg)	70–76 lbs. (31.8–34.5 kg)	65–70 lbs. (29.5–31.8 kg)	60–65 lbs. (27.2–29.5 kg)	T6	T7	T8	T9	T10	T11	T12	T13	T13	T14	63–67 lbs. (28.6–30.4 kg)
82–88 lbs. (37.2–39.9 kg)	76–82 lbs (34.5–37.2 kg)	70–76 lbs. (31.8–34.5 kg)	65–70 lbs. (29.5–31.8 kg)	T7	T8	T9	T10	T11	T12	T13	T13	T14		68–73 lbs. (30.8–33.1 kg)

For ATA Speed of 341–350 FPS: Start in 321–340 FPS column, drop down one row in chart: Examples: 58lb–31in–345 FPS: drops down one row, still in Group T13; 46lb–28in–345 FPS: drops down one row, shift from Group T8 to Group T9

For ATA Speed of 351+ FPS: Start in 321–340 FPS column, drop down two rows in chart: Examples: 59lb–31in–355 FPS: drops down two rows, shift from Group T13 to Group T14; 47lb–28in–355 FPS: drops down two rows, shift from Group T8 to Group T10

Group 00

Size	Spine	Model	Weight Gr/inch
1800	1.800	Carb1	3.6
1800	1.800	Apollo	3.6
1800	1.800	Inspire	3.6
1214	2.503	7S	5.9
1413	2.036	7S	5.9

Group 01

Size	Spine	Model	Weight Gr/inch
2-00	1.500	A/C/G	4.7
1500	1.500	A/C/G	4.7
1600	1.600	Carb1	3.8
1600	1.600	Apollo	3.8
1600	1.600	Inspire	3.8
1416	1.614	7S	7.1
1516	1.403	7S	7.3

Group 02

Size	Spine	Model	Weight Gr/inch
1250	1.250	A/C/E	5.1
1300	1.300	A/C/G	5.1
3L–00	1.300	A/C/C	5.1
1400	1.400	Carb1	4.2
1400	1.400	Apollo	4.2
1400	1.400	Inspire	4.2
1400	1.400	Vector	3.9
1514	1.379	X7	6.8

Group 03

Size	Spine	Model	Weight Gr/inch
1100	1.100	A/C/E	5.1
1150	1.150	A/C/G	5.5
3-00	1.150	A/C/C	5.5
1150	1.150	Carb1	5.0
1200	1.200	Inspire	7.2
1200	1.200	Apollo	5.5
1000	1.000	Vector	5.0
1614	1.153	X7	7.7

Group T3

Size	Spine	Model	Weight Gr/inch
*720–780R	0.720–0.780	A/C/E	6.4
*700–750R	0.700–0.750	X10	6.7
720	0.720	ProTour	6.2
*710–810R	0.710–0.810	A/C/G	6.5
3X–04	0.830	A/C/C	6.7
3L–04	0.750	A/C/C	7.0
730	0.730	Carb1	6.0
750	0.750	Inspire	8.1
840	0.840	Apollo	6.5
1813	0.874	7S	7.9
1814	0.759	X7	8.6
1816	0.756	7S	9.3

Group T4

Size	Spine	Model	Weight Gr/inch
*670–720R	0.670–0.720	A/C/E	5.9
*650–700R	0.650–0.700	X10	6.8
670	0.670	ProTour	6.5
*660–710R	0.660–0.710	A/C/G	6.9
3L–04	0.750	A/C/C	7.0
3-04	0.680	A/C/C	7.2
660	0.660	Carb1	6.6
630	0.630	Inspire	7.9
740	0.740	Apollo	7.2
1913	0.733	7S	8.3
1914	0.653	X7	9.3

Group T5

Size	Spine	Model	Weight Gr/inch
*620–670R	0.620–0.670	A/C/E	6.1
*600–650R	0.600–0.650	X10	7.0
620	0.620	ProTour	6.7
*610–660R	0.610–0.660	A/C/G	7.3
3–04	0.680	A/C/C	7.2
660	0.660	Carb1	6.6
630	0.630	Inspire	7.9
670	0.670	Apollo	7.7
2013	0.610	7S	9.0
1914	0.658	X7	9.3
1916	0.623	7S	10.0

Group T6

Size	Spine	Model	Weight Gr/inch
*570–620R	0.570–0.620	A/C/E	6.3
*550–600R	0.550–0.600	X10	7.5
570	0.570	ProTour	6.9
*540–610R	0.540–0.610	A/C/G	7.7
3L–18	0.620	A/C/C	7.5
500	0.600	Carb1	6.9
570	0.570	Inspire	8.2
610	0.610	Apollo	8.1
500	0.500	LSpd	6.5
500	0.500	FB	7.1
2033	0.610	7S	9.0
2014	0.579	X7	9.6
1936	0.623	7S	10.1
425	0.475	SDRIVE 23	6.4

Group T7

Size	Spine	Model	Weight Gr/inch
*520–570R	0.520–0.570	A/C/E	6.7
*500–550R	0.500–0.550	X10	7.8
520	0.520	ProTour	7.3
*540–610R	0.540–0.610	A/C/G	7.7
3–18	0.560	A/C/C	7.8
3–28	0.530	A/C/C	8.1
530	0.530	FMJMatch	8.4
550	0.550	Carb1	6.9
560	0.560	Apollo	8.4
500	0.500	LSpd	6.5
500	0.500	FB	7.1
2212	0.505	X7	8.8
2114	0.510	X7, 7S	9.9
2016	0.511	7S	10.6
475	0.475	SDRIVE 23	6.4

Group T8

Size	Spine	Model	Weight Gr/inch
*470–520R	0.470–0.520	A/C/E	6.8
*450–500R	0.450–0.500	X10	8.1
470	0.470	ProTour	7.6
*480–540R	0.480–0.540	A/C/G	8.4
3–28	0.500	A/C/C	8.1
3–39	0.440	A/C/C	8.6
490	0.490	FMJMatch	8.9
500	0.500	Carb1	7.4
500	0.500	LSpd	6.5
500	0.500	FB	7.1
2212	0.505	X7	8.8
2213	0.460	X7, 7S	9.9
2114	0.510	X7, 7S	9.9
475	0.475	SDRIVE 23	6.4

Group T9

Size	Spine	Model	Weight Gr/inch
*430–470R	0.430–0.470	A/C/E	7.0
*410–450R	0.410–0.450	X10	8.5
420	0.420	ProTour	8.0
*430–480R	0.430–0.480	A/C/G	8.9
3–39	0.440	A/C/C	8.6
490	0.450	FMJMatch	9.4
450	0.450	Carb1	8.1
400	0.400	LSpd	7.4
400	0.400	FB	7.8
2311	0.450	X7	8.9
2312	0.423	X7	9.5
2213	0.460	X7, 7S	9.9
2214	0.425	X7	10.4
2115	0.461	7S	10.8
375	0.375	SDRIVE 23	6.9

Group T10

Size	Spine	Model	Weight Gr/inch
*400–430R	0.400–0.430	A/C/E	7.5
*380–410R	0.380–0.410	X10	8.9
380	0.380	ProTour	8.4
*430–480R	0.430–0.480	A/C/G	8.9
3–39	0.440	A/C/C	8.6
3–49	0.390	A/C/C	8.8
400	0.400	FMJMatch	10.0
410	0.410	Carb1	8.5
400	0.400	LSpd	7.4
400	0.400	FB	7.8
2413	0.365	X7, 7S	10.5
2214	0.425	X7	10.4
2314	0.390	X7, 7S	10.8
2412	0.400	X7	9.7
375	0.375	SDRIVE 23	6.9

Group T11

Size	Spine	Model	Weight Gr/inch
*370–400R	0.370–0.400	A/C/E	7.9
390R	0.390	X10	8.9
390	0.380	ProTour	8.4
3–49	0.390	A/C/C	8.8
3–60	0.340	A/C/C	9.5
375	0.375	FMJMatch	10.3
400	0.400	LSpd	7.4
400	0.400	FB	7.8
290	0.290	SDRIVE 25	7.8
350	0.350	FBORE	8.4
2413	0.365	X7, 7S	10.5
2314	0.390	X7, 7S	10.8
2315	0.340	X7, 7S	11.8
2511	0.348	X7	9.6
375	0.375	SDRIVE 23	6.9

Group T12

Size	Spine	Model	Weight Gr/inch
370R	0.370	A/C/E	7.9
350R	0.350	X10	8.4
340	0.340	ProTour	8.8w
3–60	0.340	A/C/C	9.5
3–71	0.300	A/C/C	9.9
340	0.340	LSpd	8.2
340	0.340	FB	8.3
290	0.290	SDRIVE 25	7.8
350	0.350	X7	8.4
2511	0.348	X7	9.6
2512	0.321	X7	10.3
2612	0.285	X7	10.2
2613	0.265	X7	11.5
2712	0.260	X7	11.3
325	0.325	SDRIVE 23	7.4

Group T13

Size	Spine	Model	Weight Gr/inch
325R	0.325	X10	8.8
3–71	0.300	A/C/C	9.9
290	0.290	SDRIVE 25	7.8
270	0.270	FBORE	9.0
2512	0.321	X7	10.3
2612	0.285	X7	10.7
325	0.325	SDRIVE 23	7.4

Group T14

Size	Spine	Model	Weight Gr/inch
270	0.270	FBORE	9.0
2613	0.265	X7	11.5
2712	0.260	X7	11.3

Every effort has been made to ensure the accuracy of this catalog. Graphics and images are for illustration purposes only. Due to on-going efforts to improve our products, Easton reserves the right to make changes without notice. 2018 products available for sale on or after December 1, 2017.

KEY

A/C/E	Aluminum/Carbon/Extreme
X10	X10 Shafts (Aluminum/Carbon)
ProTour	X10 ProTour Shafts (Aluminum/Carbon)
A/C/G	A/C/G (Aluminum/Carbon)
A/C/C	Aluminum/Carbon/Composite
FMJMatch	FMJ Match
Carb1	Carbon One
Apollo	Apollo
Inspire	Inspire
LSpd	LightSpeed & LightSpeed 3D
SDRIVE 25	Super Drive 25
SDRIVE 23	Super Drive 23
FB	FatBoy
FBORE	Full Bore
X7	X7 Eclipse (7178-T9 alloy)
7S	XX75: Platinum Plus, Tribute, Jazz and Neos (7075 alloy)
R	The size recommendations for recurve bows are indicated with a letter "R" next to the size.
Size	Indicates suggested arrow size
Spine	Spine of arrow size shown (static) ATA standard
Model	Designates arrow model
Weight	Listed in grains per inch average for barrelled or tapered shaft

When two sizes are listed together, the weight listed is for the first shaft.

What Arrow Do You Choose?

- Use the Arrow Chart
- Recurve Bow Draw Weight = 24lbs.
- Archer's Draw Length = 27”

- Calculate True Draw Weight / Arrow Length
- Find a suitable arrow

Finger Tabs

- A Finger Tab or Glove Should be Used
  - 3 Under Tab – Barebow
  - 1 Over Tab – Olympic
- String Guard – Raw Beginner

Glove – (3 Finger)

1 Over Tab

3 Under Tab

Tuning the Recurve

- As shooting improves, Fine Tuning Needed

- Before We Tune
  - Know how to Aim and Shoot
  - Be able to shoot a 'reasonable' Group

Group – grade 'D'

Group – Grade 'B'

Group – Grade 'A'

Why Tune?

- Arrow Needs to come off Bow straight
- Match Bow and Arrows (Spine)
- Greatest Bow Efficiency / Accuracy

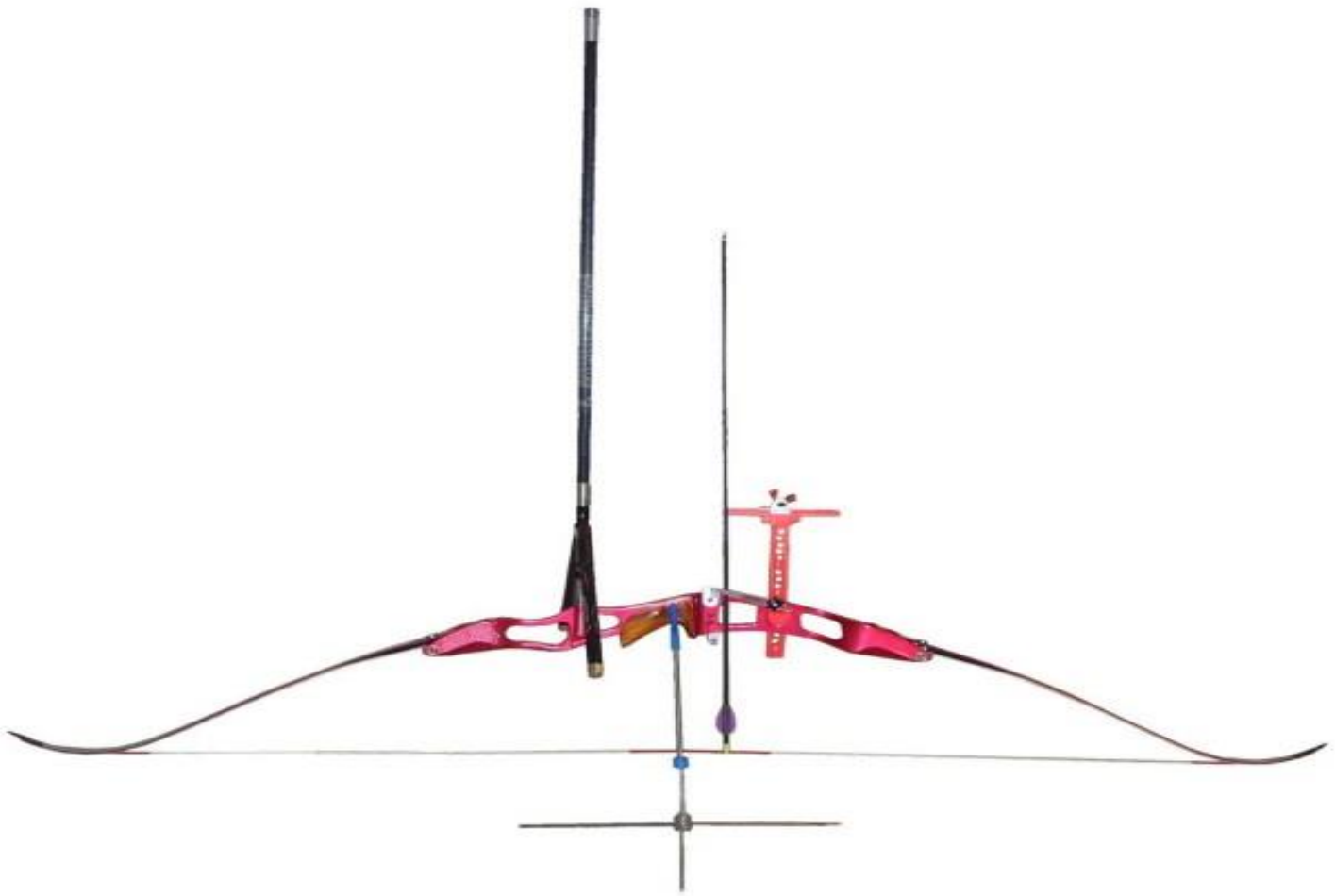
Recurve Tuning Process

- Bare Shaft Tuning
  - Adjust nock point height
  - Check & Adjust to arrow Spine
- Fine Adjustment of Draw Weight
- Fine Adjustment of Brace Height
- Fine Adjustment of Tiller
- Fine Adjustment of Plunger Tension

Olympic

- Competition Class of Bow = Recurve
- ONLY class shot in the Olympics
- A Recurve Bare Bow with Sight and Stabilizers

Olympic Recurve



The Olympic Recurve

The Sight

- Competition Class Allows a Sight device
  - Adjustable Elevation and Windage
  - Aperture (dot) for Aim
- CANNOT have any magnification
- Use 'String Blur' as rear sight

Olympic Sight

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The Aperture

The Clicker Device

- Thin Blade 'rides' on Arrow shaft
- When Arrow Point passes it CLICKS
  - Indicates to the Archer Full Draw reached
- Archer Draws until 'click' then releases

Clicker Device

Stabilizers

- Competition Class allows Stabilizers
- Olympic style is Forward and dual Rear
- Steadies sight and absorbs vibration

A Weight Formula

One of many weight Formulas

- Front weight x length = front load
- Front load / rear length = rear load
- 4oz – 30” front rod w/12” rear rod
- 120 / 12 = 10oz at rear rod

Olympic Stabilizers

Archery Club Equipment

- Galaxy Sage - right hand - 25 lbs
- Galaxy Aspire - right hand - 20 and 25 lbs
- Galaxy Aspire - left hand (red) - 25 lbs
- Galaxy Meteor - right hand - 25 lbs
- International - right hand - 37 lbs
- Intrepid 900 regular and long arrows
- Arm guards
- Finger tabs - RH / LH, S - M - L

Club Information

- Club web site: otowarchery.com
- Email: archeryclubotow@gmail.com
- Mentor Program
- “Instructional Sessions”
  - Evaluated and added as needed