

TUNING MATHEWS BOWS

SETTING TO SPEC				
	TWISTING STRING	TWISTING CABLE	UNTWISTING STRING	UNTWISTING CABLE
AXLE TO AXLE	Reduces	Reduces	Increases	Increases
BRACE HEIGHT	Increases	Increases	Reduces	Reduces
CAM TIMING AVS	Moves window toward riser	Corrects a cam that hits first	Moves window toward string	Corrects a cam that hits second
CAM TIMING SINGLE CAM	Points timing holes toward riser	Points timing holes toward string	Points timing holes toward string	Points timing holes toward riser
POUNDAGE	Reduces	Increases	Increases	Reduces
DRAW LENGTH	Reduces	Increases	Increases	Reduces
PAPER TUNING				
	LEFT TEAR	RIGHT TEAR	HIGH TEAR	LOW TEAR
REST	Move to the right	Move to the left	Raise	Lower
NOCKING POINT	–	–	Lower	Raise
TOP HATS AVS	Move cam left	Move cam right	–	–
YOKES SINGLE CAM	Twist left yoke	Twist right yoke	–	–
CAM TIMING AVS	–	–	Twist cable on top cam	Twist cable on bottom cam
CAM TIMING SINGLE CAM	–	–	Twist string / untwist cable	Twist cable / untwist string
SHAFT STIFFNESS	Too weak (RH)*	Too stiff (RH)*	Too weak	Too stiff
OTHER CAUSES	Draw length too long (RH)	Facial pressure, DL too short (RH)	Fletching contact	
BARE SHAFT TUNING (POI)				
	BARE SHAFT LEFT	BARE SHAFT RIGHT	BARE SHAFT HIGH	BARE SHAFT LOW
REST	Move to the left	Move to the right	Lower	Raise
NOCKING POINT	–	–	Raise	Lower
TOP HATS AVS	Move cam to right	Move cam to left	–	–
YOKES SINGLE CAM	Twist right	Twist left	–	–
CAM TIMING AVS	–	–	Twist cable on bottom cam	Twist cable on top cam
CAM TIMING SINGLE CAM	–	–	Twist cable / untwist string	Twist string / untwist cable
SHAFT STIFFNESS	Too stiff (RH)	Too weak (RH)		
OTHER CAUSES	Draw length too short (RH)	Draw length too long (RH)		

**with a release aid, left/right tears are not reliable indicators of shaft stiffness. This is more applicable to finger shooters where the release generates much more horizontal oscillation.*

- Paper tears and bare shaft point of impact (POI) work in opposite directions, meaning a high left tear will cause a low right bare shaft POI.
- AVS cam timing and paper tears: start with cams hitting together and correct high/low tears with the rest/nocking point. As a principle for reference, a cam that hits the draw stop first will tend to cause a tear in the same direction (e.g. top cam hits first=high tear).
- AVS cam timing and bare shaft POI high/low: if your draw stops are hitting even on the top and bottom cams, correct high/low bare shaft using the rest. Cam timing is a last resort for bare shaft POI height.
- AVS cam/cable twists: where you read “twist cable on xx cam,” untwisting the cable on the opposite cam will have the same effect. Choose whether to twist/untwist based on other factors (DL, ATA, poundage, etc.). Twisting (shortening) cables increases DL, reduces ATA, increases poundage.