DIMANA Boomerangs
****
"IMPULSE MTA"
****
LITTLE AND THIN -> EASY TO TUNE -> EASY TO THROW

Developed during 1993-1995
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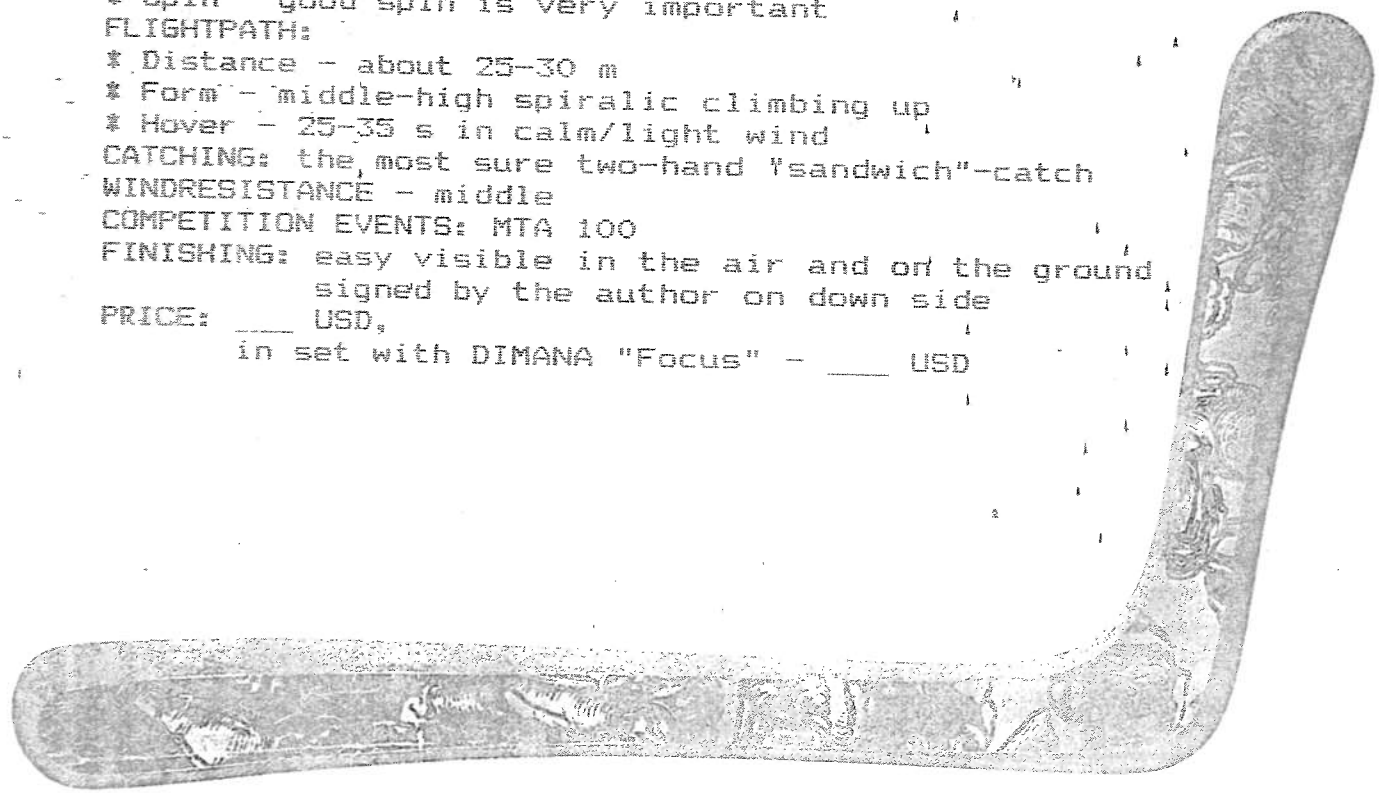
Mentioned in "BOOMERANG NEWS", #55/1993, p.23
About the older "Impulse"-"brothers & sisters" - "Magic MTA", "Magic MTA Mini" and "Opti MTA" see "BOOMERANG NEWS", #4/July 1994, p.6; #7/Nov.1994, p.5; #16/July 1995, p.6

SHAPE: "hockey stick" type with widened arm-tips,
PROFILING: relativ sharp, turbulent edges
MATERIAL: glassfiber/epoxy-resine composite + metal ply, unbreakable
THICKNESS: 1.5 mm
SPAN: 302 mm
MASS: 20.5 g
TUNING:
* With two fingers
* Bending - positive - LA 5-7 mm and TA 3-5 mm
* Twisting - a little and positive of both (!) arms
THROWING:
* Grip - pinch-grip on the LA-tip recommended
* Wind-angle - about 45 degrees
* Tilt-angle - 0-5 degrees
* Aim-angle - 20-30 degrees - relativ low, IMPORTANT and typical for this model !
* Spin - good spin is very important
FLIGHTPATH:
* Distance - about 25-30 m
* Form - middle-high spiralic climbing up
* Hover - 25-35 s in calm/light wind
CATCHING: the most sure two-hand "sandwich"-catch
WINDRESISTANCE - middle
COMPETITION EVENTS: MTA 100
FINISHING: easy visible in the air and on the ground
signed by the author on down side
PRICE: ___ USD,
in set with DIMANA "Focus" - ___ USD



Maximum Time Aloft (MTA) Boomerang Tuning & Throwing Instructions

by Ted Bailey

Throwing Instructions

The two most important factors in throwing the MTA boomerang are the layover and incline angles. The MTA boomerang must be oriented absolutely vertical at the moment of release as depicted in figure 1 below. The MTA boomerang must be launched at an incline (figure 2) of between 25 and 60 degrees. The incline angle will vary from boomerang to boomerang depending on the tuning. It is best to use a pinch grip. Throwers who wrap their fingers around the tip tend to twist the boomerang to a non-vertical orientation during the release. It is important to induce as much spin as possible. Most throwers have their best success by holding the dingle arm, rather than the lift arm. Begin each throwing session with light & easy throws until good flight stability is achieved. When thrown correctly, the boomerang will spiral to great heights and go into a stable hover, then return to earth in a stable hover. Always throw with the safety of others in mind. Protect your eyes and face when catching any boomerang.

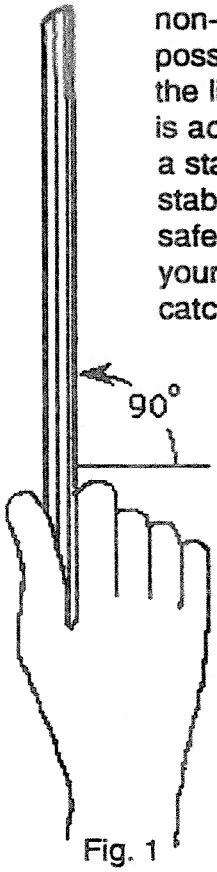


Fig. 1

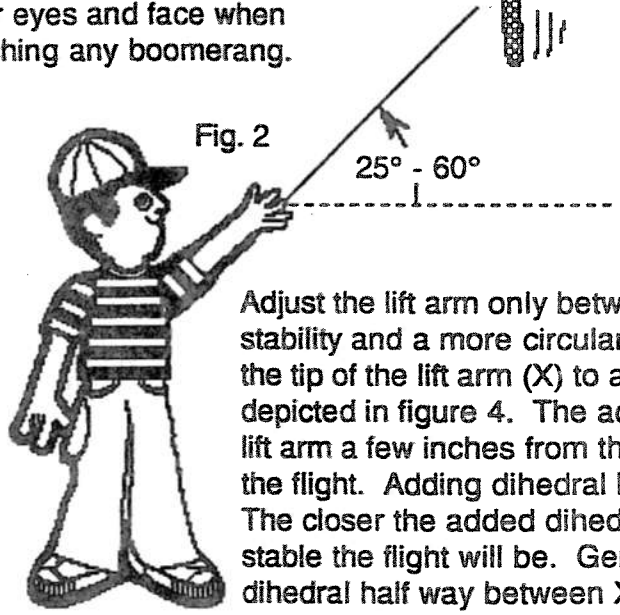


Fig. 2

Tuning Instructions

Every Bailey MTA boomerang has been thoroughly tuned and tested before being sold. If it does not fly well, first make sure that you are throwing it correctly. The dingle arm should have a small amount of positive dihedral and a slight negative angle of attack.

Adjust the lift arm only between locations X & Y in figure 3. Greater stability and a more circular flight profile can be obtained by twisting the tip of the lift arm (X) to an increased positive angle of attack as depicted in figure 4. The addition of negative angle of attack on the lift arm a few inches from the elbow (Y) may increase the height of the flight. Adding dihedral between X & Y will also increase height. The closer the added dihedral is made towards the tip (X), the more stable the flight will be. Generally, you should start by adding dihedral half way between X & Y.

Do not overtune a MTA boomerang!

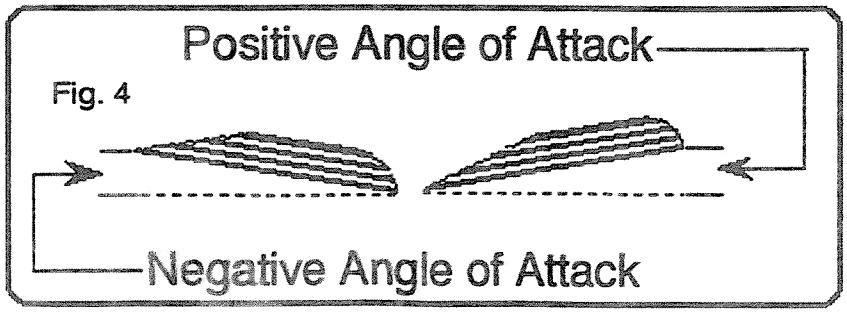


Fig. 4

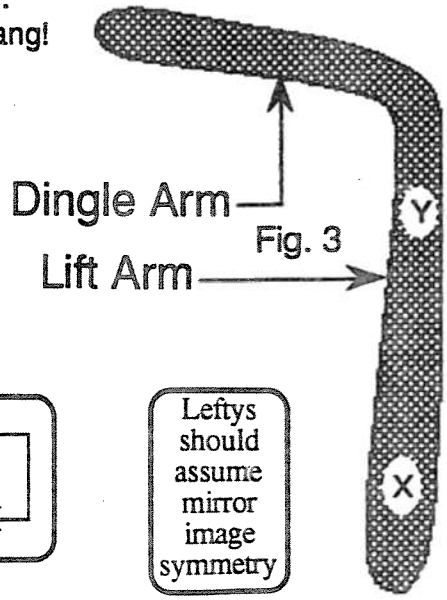


Fig. 3

Fig. 5

Leftys should assume mirror image symmetry