

SEVENTH ANNUAL W.J.C.L. WAR MACHINE CONTEST

January 2010

SCORPION STYLE BALLISTA

Guidelines

Challenge: To build a fully functional authentic *torsion-powered siege ballista of the scorpion style*. The competition is for scorpion/ballistas only; no other Roman War Machines (such as catapults, onagers, or trebuchets) will be judged. This assures that “apples are competing against apples.” The ballista is a sinew-powered weapon that looks like a large bow laid sideways on a frame. It has two arms that are pushed through ropes made of tough animal sinew which is then twisted, becoming a powerful spring, pulling each arm forward. The arms are then drawn rearward to further twist the skeins and thus gain the torsion power to throw a projectile. Your machine should be of the smaller “stretched-straight” design, where the skeins and stanchions are in a straight line side to side within the head-frame. Since there is no evidence that the Romans ever used metal springs in their torsion powered weapons, you will not be allowed to use metal springs.

Size: All supporting, floor-touching parts no larger than 18” cubed. The highest point of the machine may be no more than 20” from the floor.
See missile dimensions under “judging criterion” below

Caveat: Do not use a “gastraphetes” design. Use one modeled after the “Vitruvius” Scorpion. Your machine should be powered by torsion, not tension.

Building Materials: No metal springs
Suggestions include wood, twine, rubberbands, nails, screws.

Judging criterion: The scorpion must work.
The winner will be chosen for its ability to throw a missile the farthest distance.
Each missile is made of an 8-8 1/2 nonflexible plastic straw with a wet cotton ball stapled to one end. Each missile will weigh .25-.30 oz. total on an electronic kitchen scale; all missiles will be evenly weighed and provided by a judge.
In the case of a tie for distance in Rounds 1 and 2, the tied entries will reshoot 3 times using one missile.
A tie in Round 3 will be addressed according to the aesthetics of the entry, since so much of the heritage of the Roman culture is also its architectural values (beauty, design, style).
-the aesthetics of each scorpion should reflect school colors
- the aesthetic judging will be done by the team judging convention art projects

Competition procedure:

- The contest is limited to one entry per school
- The results of the contest will contribute to sweepstakes points
- The goal is to award 1st through 5th places
- Round 1 – each entry competes by shooting three (3) times and choosing the best of their three attempts; top 8 winners proceed to next round
- Round 2 – top 8 entries again get three shots each and choose the best of their three attempts; top 5 entries proceed to next round.
- Round 3 – top 5 entries get ONE shot to determine 1st through 5th places