

Pennsic XXXV Siege activity standards

Greetings from Lord Graywolf the Gonner, EK Siege Engineer-General.

Official siege activity at Pennsic XXXV will be limited to the main battlefield, and SCA combat siege criteria. There will not be a siege range per se, although there may be first week classes and practice, we will be incorporating siege devices into battle scenarios, and a Missile Day Competition and on the Woods Battle Day, details to be announced. There will also be siege engine competitions and activities on the battlefield or at the Siege Tent, the exact time will be posted on line, and at Pennsic. All siege devices and crew will conform to EK (and therefore, Society) standards, and specific new safety regulations for Siege operations based on the latest East Kingdom Siege Rules listed hereafter, and on-line at <http://www.panix.com/~penmarsh/seige/> and the East Kingdom Siege Page.

I will be requiring Siege Marshals to wear the Standard Black Marshal Tabard with Staff and at least standard personal protection with Goggles or a Helmet. I am highly recommending the Tabard over minimum Armor, Helmet with Drape, and the additional Black and Yellow sleeve marker for Siege (for quick identification).

There will be posted and announced meetings of all Siege Marshals.

We will need a Siege Tent for inspections, classes, limited Engine Storage (for some with poorer mobility), and Meetings this year.

A. SCA Siege Engine Criteria

1. There are three (3) types of siege devices - the active Siege Weapons and the passive Siege Structures. For the purposes of this document, and to avoid confusion:

- a) Siege Engines shall be defined as those designed to deliver missiles larger than the already established small arms ammunition.
- b) Siege Structures will be defined as devices such as towers or ramps that are used to support personnel but are not fitted with active weaponry.
- c) Siege Items are defined as devices used during siege that do not require an Engine to launch them. These will be detailed later in this document.

2. Siege Engines will be broken down into two (2) categories

- a) Type-A engines are those which are designed to deliver the large ammunition to a range of between forty (40) and eighty (80) yards. Type-A engines can use all approved

ammo classes. Type-B engines are those designed to deliver ammunition larger than small arms ammo to a range of between forty (40) and eighty (80) yards.

b) Type-B engines may not use anything above small siege ammunition, Javelins/Bolts (4 foot only), 4 TBall Clusters, and Single TBall. For the purposes of administration, any device not designed to deliver these types of ammunition will not be considered a siege engine, but may, at the discretion of the Deputy Society Marshal for Archery and the Society Marshal, be considered the functional equivalent of combat archery equipment.

3. Unless specifically exempted, all engines should have a maximum range of eighty (80) yards. This is especially important in direct-fire weapons, where range in excess of this often results in safety concerns involving extreme minimum-range impact. Any engine whose range will exceed eighty (80) yards must show proof on request that the extra force necessary to propel ammunition that distance will not cause excessive impact at minimum range.

B. General Siege Engine Regulations

***** An Engine may not be loaded during a Hold and Any Missile MUST be removed from the Engine until the call "Lay On!" is called. Violation will result in both Engine and Crews immediate removal from ALL Combat at the Event!*****

1. Engines and their projectiles shall be inspected by a warranted marshal prior to being used at that event, and after any modifications are made to the engine during the course of an event.
2. Direct fire engines shall not be discharged against personnel within a range of thirty (30) feet or, in such a manner as to willfully allow the projectile to leave the Battle Area Proper or designated Unsafe Zones.
3. No engine will be discharged while any non-crew person is within a 5' range of moving parts; (i.e., a trebuchet will not be discharged while a fighter is standing anywhere in the path of the arm, front or back). Markers will be set up to identify areas of potential injury if the range of the moving parts is not easily identifiable (i.e., an area in front of a trebuchet with very long arm should be clearly marked as dangerous to avoid injury caused by the arm or sling as it pivots forward of vertical).
4. Engines must be equipped with a safety device sufficient to prevent accidental firing if they are to be relocated while braced. Any engine without such a device shall only be relocated while unbraced.
5. Except for man-powered trebuchets, all siege engines will be fitted with an appropriate mechanical trigger mechanism which shall be used every shot.
6. Engines may not use compressed or ignited gasses or liquids, or combusting materials of any kind, to power projectiles.
7. Engines will attempt to visually and functionally recreate their period counterparts. Engines shall be powered in a manner that functions consistent with their period counterparts. When period power methods are unsafe, or not feasible (such as gunpowder) alternative sources of power may be used.

8. Any material approved for use in devices on the battlefield may be used in the construction of engines, provided the materials are sufficient to assure the safety of the engine. For safety, the following materials have special requirements:

- a) Turnbuckles and Eye Bolts - when used in or attached to the source of power for an engine, these items shall be rated to withstand one hundred fifty percent (150%) of the forces produced (i.e. If the cable attached to a turnbuckle will support one hundred (100) pounds of tension, the turnbuckle will be rated at one hundred fifty (150) pounds static load). Hardware store and home center hardware is often of low quality and rating.
- b) Steel Cable - while steel cable is useful for such functions as safetying a throwing arm, it will not be used as a bowstring for any type of siege engine.
- c) Softwood or non laminated hardwood - when used as the throwing arm for a catapult or trebuchet, pine arms shall be secured against breakage with a minimum of glue-soaked sisal or jute cord wrapping (two-inch (2") wraps every six (6) inches) over a section of rope glued to the arm along the full length of the arm. This will keep the arm from leaving the engine should it break. It is strongly recommended that all arms be wrapped in this manner regardless of material used.

9. Type-A engines will:

- a) have a minimum footprint of eighteen (18) square feet.
- b) be able to deliver a large siege missile at least forty (40) yards.
- c) have a mechanical cocking device, such as a winch or windlass. These engines may not be cocked by hand.
- d) have as a minimum a crew of three (3) people and is inoperable with any less.
- e) be able to launch one projectile, up to 5 small siege projectiles, OR 2 to 20 small arms projectiles per shot.

10. Type-B engines will:

- a) have a minimum footprint of twelve (12) square feet. Crew are not allowed to figure in the Footprint of an Engine.
- b) be able to deliver a small siege missile at least forty (40) yards.
- c) have a mechanical cocking device, such as a winch or windlass. These engines may not be cocked by hand.
- d) have as a minimum a crew of two (2) people and is inoperable with less.
- e) be able to launch 1 small siege projectile OR 2 small arms projectiles per shot.

11. Man-powered engines will be considered Type-B engines and must meet the requirements stated, with the exception that they shall not be required to have a mechanical release or cocking device.

12. Only devices meeting the above criteria will be considered siege engines.

13. Cannon or Firearm styles of any type are not allowed in combat.

C. Siege Structures will:

1. be able to support 300 pounds for every four (4) square feet.
2. be equipped with railings or walls at least thirty-six (36) inches tall and able to support 100pounds per foot railing length if the platform more than three (3) feet from the ground
3. be structurally stable (i.e., a wheeled siege tower should have a base big enough and wheels large enough to safely carry crew over the terrain of the field).
4. Battering Rams - battering rams and battering structures are permitted, but should be built sufficiently strong to withstand repeated impacts and light enough to be safe when carried or if dropped. More details under Siege Tools

D. Siege Ammunition Standards

1. No ammunition may exceed one (1.0) pound.
2. Ammunition shall be constructed of the following materials:

- a) Open-cell foam
- b) Closed-cell foam
- c) Tennis balls (punctured with a hole no larger than 1/16)
- d) Golf tube or similar semi-rigid, shatter-resistant tubing such as Siloflex (PVC is NOT included in this definition)
- e) Cord
- f) Duct and filament tape
- g) Film canisters
- h) PVC reinforcement rings

3. Siege projectiles, Oil, and Castle Rocks will be capable of killing through Shields . Siege ammo may be capable of damaging structures, depending on the scenario rules. All siege projectiles are capable of damaging other engines and siege structures (refer to scenario specifics for number of hits for each ammo type required to destroy an engine or siege structure).
4. Hand weapons hit by Siege Projectiles are destroyed. Anyone attempting to deflect or block siege ammunition is considered KILLED ! Only SMALL ARMS Ammo may be blocked or deflected. Small arms Ammo may not have ANY Yellow markings.
5. Large siege ammunition: intended to simulate large, heavy projectiles normally used as anti-structure missiles; (i.e., two hundred fifty (250) pound sandstone rocks used in large trebuchets). These only these and Battering Rams may shatter Gates. Three hits from these rocks will burst a Gate.

a) Large rocks. These will be constructed of fabric spheres filled with light or medium density foam, taped with filament and duct tape to protect. These shall not exceed 1 pound. They shall be a minimum of six and one half (6.5 inches) in diameter and must be completely colored Yellow.

6. Small siege ammunition: intended to simulate smaller, lighter projectiles used as light anti-structure and anti-personnel missiles; (i.e., ballista javelins and ten (10) pound stones as used in Perriers).

- a) Four -tennis ball clusters - secured with filament tape and duct tape (punctured and tied with cord also acceptable) must be at least 50% Yellow
 - b) Spliced golf tube javelins - splices secured with cord and filament tape, single tennis ball head tied on and taped with filament and duct tape or a thrusting tip with a minimum of 3 inches of foam between the striking surface and the end of the Javelin and have a minimum diameter of 2½ inches. It must have at least 1 inch progressive give and must not bottom out on the tube. Additionally, the end of the tube must be capped with a minimum of 1/8 inch heavy leather, a 35mm film container lid, or a 35mm film container held securely in place with filament tape. The tubes may be reinforced with medium density foam (such as pipe insulation) in order to prevent crush damage. Film canisters, PVC rings, and similar non-brittle, non-metallic lightweight reinforcements (securely attached and not over 2 inches long) may be used at the butt end of the javelin. Non-rigid fletching may be used. Javelins will be at least forty-eight (48) inches and clearly marked with an all yellow shaft and tip. The new Pool Noodle/ Q-Tip tipped missiles are accepted per the SCA Siege Handbook.
 - c) Other javelins - materials such as Siloflex or similar semi-rigid, shatter resistant tubing can be used, as long as the minimum diameter is equivalent to golf tube and the rest of the construction meets the standards for spliced tube construction and must have both a Yellow body and impact tip. Avoid excessive weight. PVC is not shatter-resistant and is not considered legal for ballista javelins.
 - d) Small Arms Ammunition is to be treated as combat archery projectiles.
6. Specialty siege ammunition: intended to simulate specialty ammunition; (i.e., flaming oil pots or flaming javelins): or effect weapons; (i.e., diseased animal corpses or the heads of decapitated messengers). Specialty missiles will have damage determined in the scenario rules. Most effect weapons will have little or no damage potential, and therefore should be used sparingly. Specialty Siege Ammunition may be used as long as it doesn't exceed the weight or construction materials limitations of the approved ammunitions.

E. Inspections

1. Engine Inspections

- a) An equipment inspection station shall be designated at any event allowing siege engines. This inspection range shall at minimum consist of a field with a firing line and range markers at forty (40) and eighty (80) yards from the firing position.
- b) Preliminary inspection of the engine shall be made before any shots are fired. This inspection should be to check for structural integrity of the components of the engine.
- c) An operational demonstration phase of the inspection shall, at minimum, consist of four (4) shots from the engine, configured for the maximum power it will use on the field at that event. These four (4) shots shall deliver the ammunition between forty (40) and eighty (80) yards without mechanical failure.
- d) Static inspection for stability of the engine, and mechanical observation of the framework and the mechanism shall be made after the firing.

2. Structure Inspections

a) Siege structures should be inspected before being allowed to participate in an event. Inspection should include at a minimum structural integrity, stability, condition of hardware, condition of any safety devices (barriers, walls, etc.). Inspection will ideally be made with a maximum load of armored combatants on board the siege structure. Inspection will include a demonstration of mobility if the structure is designed to be mobile.

3. Ammunition Inspections

a) Siege ammunition must be inspected before being allowed to be used in an event. Inspection should include at a minimum: weight, structural integrity, stability, and condition. Inspection of weight will ideally be made with an accurate scale, but accurate comparison weights may be used at the discretion of the marshal-in-charge.

b) All Projectiles must be re-inspected at the Siege Tent after every battle and will be sprayed with the "color of the day" if they pass inspection. Any projectile that does not pass inspection cannot be used until it has passed inspection. Repairs only will be inspected before the Battle.

c) Any projectile found on the battle field without the "color of the day" marking will be considered un-inspected equipment and will be handed over to Marshal's Court for review.

d) All Projectiles must be legibly marked (in English) with the ARCHERS full name and kingdom. If the projectiles belong to a group then they must be marked with the makers name and the group for whom the ammo was made, as well as the kingdom affiliation.

F. An Engine is "Dead" when approached within 5' by the opposition or it is hit by a total of 3 Siege Bolts, 3 "4 Tennis Ball" Rocks or, 1 250# Rock .

1. Crew still in this area are "Killed".

2. Crew outside 5' may retreat or take up arms but, are then under HL Rules.

3. Crew Weapons, if brought on the Field, must not be worn or placed/hung on the Engine during Battles and must be Grounded at least 6' from the Engine. 8' is suggested to avoid a "Tripping Hazard".

4. Active Engines with Dead Crews may be Repopulated.

5. Dead or inactive Engines must be marked with a clearly visible Yellow Streamer or Ribbon. This is the responsibility of the Crew or nearest Siege Marshal.

6. NO Loaded Engine maybe left unattended on the Field and Dead Engines must be "Safed" and Unloaded at the first reasonable moment.

7. An Engine may receive a reasonable blow to indicate it is destroyed.

8. A loaded Engine should not be struck and should the Battle become unsafely close the Engineer should unload and yield the Engine. Or, in an Emergency call a "HOLD!"

G. Crew Requirements

1. Siege crews generally are classified as non-contact combatants. But, should be prepared to take a reasonable hit and yield safely as per the SCA Siege Handbook. Siege Personnel may chose to leave the Engine and fight as HL if they wish..
2. Crew members wishing to defend an Engine may do so as long as all action takes place over 5 feet from the Engine(s) and shall not wear the Diamond.
3. Crews must be authorized in armored combat as fighters or combat archers.
4. Crews must be armored AT LEAST to the minimum requirements for non-contact combatants.

H. Siege Items

1. Castle Rocks

DEVICE:

- a) The "Rock" is equivalent to a 50# Stone.
- b) The shape must be irregular and be at least 12" x 12" x 18". This is to avoid any confusion with Cast Stones from Engines.
- c) The construction must be of open or closed cell Foam and be wrapped entirely in Gray/Silver Tape and may not exceed 32 ounces in weight.

IMPLEMENTATION:

- a) Rocks may be dropped by any fighter in SCA minimum Armor
- b) The Rock may NOT be thrown. It must be DROPPED and may not be used unless the Wall averages approximately 8' in ACTUAL height to the Exterior Ground Level.
- c) The Rock is a SINGLE HIT, SINGLE KILL device.
- d) Rocks may not be Gleaned, but may be recovered between Battles.
- e) Expended Rocks have no further effect and are considered non-interactive debris for the duration of the Battle.
- f) There is no limit on stockpiling Rocks.

2. Battering Ram

DEVICE:

- a) The "Ram" is equivalent to a 300 pound log with rope handles for carrying.
- b) The Ram should be made of 4 to 7, 3+ inch diameter closed cell foam "Pool Noodles" at least 4 but no more than 8 feet in length as the item is individual color is not important.
- c) It must be warped at both ends with Duct Tape and every 2 feet down its length.
- d) Rope handles should be placed at appropriate intervals for carrying and use. These handles should be long enough for easy gripping with armored hands but, short enough to reduce the risk of entanglement.

IMPLEMENTATION:

- a) The Ram must be manned by at least 4 soldiers and no more than 8. These soldiers may not carry weapons or Shields but, may be accompanied by others to both shield them and fight.
- b) Should the crew be reduced to less than 4 the Ram may not strike until the necessary substitutions can be made.

- c) The Ram must be backed off 3 feet between strikes.
- d) 8 strikes with a 4 foot Ram forces the door. The same with only 4 Strikes for an 8 foot Ram.
- e) Rams are not damaged by any weapons or missiles.
- f) Strikes are cumulative and the count continues if the Ram is re-crewed.
- g) Battering Rams may only be used against approved Siege Structures and may never be used against People for any reason.

3. Caltrops

DEVICE

- a) A Caltrop is a Area Denial Weapon made with 1-1/4" pipe insulation or other closed cell foam Assembled with Tape to make a Trapezoidal assembly no more than 12" tall with no reinforcements.
- b) The profile for a Caltrop must be at least 6" tall. Tips must be Yellow Taped and designed not to penetrate Grills.
- c) Caltrops may be dispersed during set up by a Crewman or may be dispersed via Class "A" Engine or Crewman during Battle.
- d) Caltrops inflict a debilitating injury and a fighter stepping on one must "take a Leg" if stepping on one.
- e) A Fighter may avoid or remove a Caltrop with an unencumbered Hand. Caltrops are NOT Thrown Weapons.
- f) Caltrops may not be repositioned by the dispersing side.
- g) They may not be employed inside the 5' safety radius of an Engine and constitute a block to its movement.
- h) There is no limit to the number of Caltrops a crew may disperse.

4. Villes

DEVICE

- a) Villes represent spear type Pickets carried by Soldiers that may assembled as improvised battlements.
- b) Villes are made of 2" to 4" diameter Pool Noodles tipped with Yellow Tape representing thrusting tips with the body wrapped in tape, preferably Brown, for stiffness. They must be at least 5" long.
- c) Villes may be assembled into a wall individually a Pickets damage effect as Spears sticking from the wall.
- d) They may be assembled with Tape to make "Jacks" as individual obstacles.
- e) They may be assembled as a Picketed Fence by joining a series to make a fence.
- f) Villes obstacles must be placed BEFORE a Battle as agreed per Scenario.
- g) Villes may be removed by a Sapper with one free Hand. The Sapper may only remove the Obstacle and may not fight during its removal.
- h) A removed Obstacle is removed from Combat.
- i) Seeded Obstacles may not be moved by the seeding side.
- j) Villes may not be used for any other purpose and are not Hand Held Weapons or Throwing Weapons.
- k) Villes may not be mounted on a mobile Siege Tower.

5. Boiling/Flaming Oil

DEVICE:

- a) The Oil is represented by a mass of open or closed cell foam in irregular chunks dispersed from a Bucket or Barrel.
- b) The shape must be irregular and be at least 2" x 2" x 2". This is to avoid any confusion with Cast Stones from Engines and Castle Rocks.
- c) The construction must be of open or closed cell Foam and be wrapped entirely in Red or Orange Tape and may not exceed 4 ounces in weight each.
- d) The dispersing container may be of 1 to 35 Gallon Size but, may not be dropped with the "Oil".

IMPLEMENTATION:

- a) Oil may be dropped by any fighter in SCA minimum Armor but containers over 5 Gallon size must be manned by 2 individuals.
- b) The Oil may be thrown. But, loss of the container causes the Thrower(s) to become immediate casualties with out chance of resurrection during the Battle and Marshal review as to further combat. Oil may not be used unless the Wall averages approximately 8' in ACTUAL height to the Exterior Ground Level.
- c) The Oil is a SINGLE HIT, SINGLE KILL device.
- d) Oil may not be Gleaned, but may be recovered during Battles.
- e) Expended Oil has no further effect and are considered non-interactive debris for the duration of the Battle.
- f) There is no limit on stockpiling Oil.
- g) Oil may not be transported with out a container.
- h) Oil blown Back on a pourer is fatal.
- i) Oil is temporary for the duration of its flight. It does not remain a active weapon after landing.

I. Miscellaneous

1. New and experimental weapons types and ammunition shall be required to undergo the same approval process as any other battlefield object. This process involves the Kingdom Earl Marshal and the Society Marshal.
2. Current information on new weapons approval procedures is delineated in the Marshal's Handbook.
3. Definitions

- * Ballista - a two-armed torsion or tension powered arrow or rock throwing direct fire siege engine.
- * Battering Ram - a crewed log for bursting gates.
- * Caltrop – an antipersonnel ground device for area denial. Mine Field.
- * Castle Rock - a large piece of rock scabbled dropped on besieging soldiers from the Castle Parapets and walls.
- * Catapult - a single armed torsion or tension powered rock throwing indirect fire siege engine.

- * Crew - any member of a siege engine's operating team, including operators, alternate crew, ramp haulers, ammunition handlers, spotters, etc.
- * Closed Cell Foam - stiff, resilient foam similar to sleeping pads
- * Direct fire - delivery of a missile in a straight, flat trajectory directly into the target
- * Indirect fire - delivery of a missile in a high, arcing

trajectory ending at the target

- * Effect Weapons - mostly novelty missiles with no real damaging ability, such as simulated animal parts.
- * Eye Bolts - hardware resembling a bolt formed into a circle on the non-threaded end
- * Footprint - ground area covered by an engine, measured as width x length in feet.
- * Javelin - spear-type missile
- * Light-density Foam - foam under 1.5 pound per cubic feet
- * Mechanical Cocking Device - A device used to brace an engine (such as a winch or windlass)
- * Mechanical Trigger Device - A device used to hold the engine in a braced state and to activate (shoot) the weapon.
- * Medium-Density Foam - foam between 1.5 and 4 pounds per cubic feet
- * Onager - see catapult
- * Open Cell Foam - light, sponge like foam such as upholstery or pillow foam.
- * Perrier - a man-powered trebuchet
- * Siege Engines - missile-launching devices designed to deliver missiles larger than the already established small arms ammunition.
- * Siege Structures - devices such as towers or ramps that are used to support personnel but are not fitted with active weaponry.
- * Specialty Ammunition - special-purpose ammunition such as simulated flaming missiles.
- * Trebuchet - a gravity or traction powered sling type rock throwing indirect fire siege engine
- * Turnbuckle - hardware consisting of 2 eye bolts fitted to a threaded barrel, used for adjusting the length of cables
- * Villes – a single Spear part of a grounded defense to be assembled as part of a Obstacle or Fortification.
- * Winch - a winding device, usually geared and equipped with a ratchet.
- * Windlass - a winding device, usually consisting of a spool with double crank handles, a set of pulleys and hooks, but not normally equipped with a ratcheting device.

J. Proposed activities for the Missile Day will include the following and more.

1. Inspection and Practice/Warm Up
2. Bowling Pin Shoot
3. Target Shoot Siege
4. Indirect Fire
5. Wall Buster Challenge
6. Hogan's Alley Siege and CA

7. Siege Elimination Duel
 8. CA Sniper Duel
 9. Thrown Combat Weapons Action Challenge
 10. CA Target Shoot
 11. IKS WC Shoot
 12. CA Fire in Motion
- (Details for above will be posted later)

A special effort will be made to assure all Engines and their Engineers will have early access to the East Kingdom Siege Handbook

In Service to the Society,

Lord Graywolf, Siege General East Kingdom