

East Kingdom Siege Weapons Handbooke

Being the Standards & Policies of the Engineer-General for Siege Weapons

- I. EAST KINGDOM REQUIREMENTS FOR SIEGE OFFICERS
 - A. All warranted siege marshals and engineers are required to maintain membership in the Society for Creative Anachronism, Inc.
 1. A marshal's warrant is voided by a lapse of membership and will not be renewed until the appropriate proof is provided to the Engineer-General of Siege Weapons.
 - B. All warranted siege weapons marshals are expected to exhibit a minimum level of activity.
 1. Marshals that report little or no activity for a prolonged period of time will not have their warrants renewed.
 2. All marshals must be of legal age in their state of residence.
 - C. All marshals must be of legal age in their state of residence.
 - D. The individual requirements for each office are outlined below.
 1. Siege Weapons Marshal
 - a) Must successfully complete the warranting procedure.
 - b) Must have been added to the official roster by the Engineer-General.
 2. Local Company Captain of Siege Weapons
 - a) Must be a warranted siege weapons marshal.
 - b) As the position is a local office, the approval of the local seneschal is required.
 - c) It is strongly recommended that the siege weapons operators of the group approve of the appointment.
 3. Lieutenant General of Siege Weapons
 - a) Must be a warranted siege weapons marshal.
 - b) Appointed by the Engineer-General.
 4. Regional Engineer of Siege Weapons
 - a) Must be a warranted Siege Weapons Marshal.
 - b) Appointed by the Engineer-General.
 5. Principality Engineer of Siege Weapons.
 - a) Appointed by the Principality Earl Marshal.
 6. Engineer-General of Siege Weapons
 - a) Appointed by the Kingdom Earl Marshal.
 - E. The warranting procedure for siege marshals is outlined below.
 1. Regional Siege Commanders and Lieutenant Generals will administer the warranting procedure to candidates for the siege marshallate.
 2. Candidates for the siege marshallate will be required to successfully demonstrate their knowledge of the Policies of the Engineer-General to the warranting marshal including the following:
 - a) Responsibilities of the siege marshallate.
 - b) Equipment standards.
 3. The warranting marshal will assess the candidate for their knowledge of range safety standards and for their ability to monitor siege equipment for safe operation.
 4. The warranting marshal will assess the practical SCA combat experience of the candidate in order to provide for the adequate training of siege weapons operators by the candidate.
 5. The warranting marshal may administer the warranting procedure as an oral, written, or practical examination.
 6. Upon successful completion of the warranting procedure by a candidate, the warranting marshal will submit the following information to the Engineer-General and the Regional Siege Commander:
 - a) The candidate's SCAdian and mundane names in full.
 - b) The candidate's contact information including street address, phone number, and if available, e-mail address and fax number.
 - c) The candidate's local group.

- d) The date and site of the warranting procedure.
 - e) The name of the warranting marshal.
 - f) Any further recommendations regarding the candidate
7. The Engineer-General will determine the inclusion of the candidate on the official roster of the siege marshallate based on the recommendations of the warranting marshal.

II. RESPONSIBILITIES OF THE SIEGE WEAPONS MARSHALLATE

- A. No siege weapon activity shall take place at an event without a warranted siege marshal present, hereafter referred to as the marshal-in-charge.
 - 1. In the event of any disagreement, the marshal-in-charge shall resolve the dispute.
 - 2. The marshal's commands are to be followed explicitly by all the siege weapon operators while on the siege field.
 - a) Failure to follow direction will result in the siege weapon being removed from the field for the day.
- B. The marshal-in-charge may request the assistance of other marshals in observing siege activities and inspecting equipment, but the responsibility for safety remains with the marshal-in-charge.
- C. The marshal-in-charge or the assisting marshals shall inspect all siege equipment and ammunition for damage and/or improper materials.
 - 1. Equipment that does not adhere to the standards set forth in Section III shall not be used in Eastern Siege Combat.
 - 2. Equipment deemed dangerous by the marshal shall not be used.
- D. All marshals are responsible for the enforcement of the rules and safety standards for East Kingdom Siege Weapons.
- E. The individual responsibilities of each office are outlined below.
 - 1. Engineer-General of Siege Weapons
 - a) As defined by Kingdom Law.
 - 2. Principality Engineer of Siege Weapons
 - a) As defined by Principality Law, and otherwise as a Regional Engineer.
 - 3. Regional Engineer of Siege Weapons: to oversee siege within their region by
 - a) Receiving and monitoring the reports of captains and marshals residing within the region.
 - b) Training the marshals within the region and administering the warranting procedure.
 - c) Organizing an annual regional siege weapons war practice and overseeing the muster of siege weapons engineers in time of war.
 - d) Reporting the status of the region's marshallate to the siege weapons Engineer-General twice annually, as defined below.
 - e) Keeping the files of the office in good order.
 - 4. Lieutenant General of Siege Weapons: to assist the Regional Engineers with their duties by
 - a) Training marshals and administering the warranting procedure.
 - b) Organizing an annual regional siege weapons war practice and overseeing the muster of siege weapons in time of war.
 - c) Reporting their activities to the Engineer-General twice annually, as defined below.
 - d) Keeping the Regional Engineers advised of their activities.
 - e) Keeping the files of the office in good order.
 - 5. Company Captain of Siege Weapons: to foster the growth of siege in the local group by
 - a) The formation of a company of siege engineers.
 - b) Promoting siege activities at local events.
 - c) Arranging a practice site for the group's siege weapons and administering regular practice.
 - d) Representing the interests of the group's siege engineers at local meetings.

- e) Reporting the status of siege in the group to the Regional siege Commander twice annually, as defined below.
- 6. Siege Weapons Marshal: to foster the growth of siege throughout the kingdom by
 - a) Assisting Company Captains with their duties.
 - b) Providing for the organization and running of siege activities whenever needed.
 - c) Reporting their activities to their Regional siege Commander twice annually, as defined below.
 - d) Keeping the Company Captains advised of their activities.
- F. Schedule of Reporting Deadlines
 - 1. All siege marshals shall report to their Regional Engineers on, or before, April 1st and October 1st of each year.
 - a) The report shall contain the gentle's SCA'dian and mundane names, address, phone number, local group, office held and a brief letter detailing recent or upcoming activities. Proof of membership must also be included. (Valid membership card number and current expiration date may suffice).
 - 2. Regional Engineers shall report to the Engineer-General on, or before, May 1st and November 1st of each year.
 - a) The report shall contain a detailed listing of the marshals and captains that filed reports, and also a list of those that did not.
 - b) Updates to the roster of marshals should also be included. (i.e.; new addresses, proofs of membership, etc...)
 - c) The report must also contain a detailed letter on the status of siege in the area. Any problem areas should also be defined.
 - 3. Lieutenant Generals shall report on the same schedule as that used by the Siege Marshallate, April 1, & October 1
 - a) The report shall contain a letter outlining the officer's activity during the period, and include observations on the state of siege in the kingdom.
 - 4. All marshals who fail to report will be brought to the attention of the Engineer-General.
 - a) Those that fail to report at the end of a period shall be considered inactive, and removed from the roster.
- G. Failure to fulfill the requirements and responsibilities listed above may result in removal from the roster of warranted marshals.
 - 1. Those removed from the roster shall be allowed thirty days to apply for re-warranting.
 - a) The reason(s) for removal must be corrected before applying.
 - b) After thirty days, applicants for re-warranting will be required to undergo the warranting procedure.

III. EQUIPMENT REGULATIONS

A. SCA Siege Engine Criteria

- 1. There are two (2) 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.
- 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. 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

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 fifteen (15) feet.
3. No engine will be discharged while any non-crew person is within the 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) Pine – 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.
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.
10. Type-B engines will:
 - a) have a minimum footprint of twelve (12) square feet.

- 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.
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.
- C. Siege Structures will:
- 1. be able to support one (1) fully armored combatant every five (5) square feet.
 - 2. be equipped with railings or walls at least thirty-six (36) inches tall and able to support the weight of a combatant if 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.
- D. Siege Ammunition Standards
- 1. No ammunition may exceed one (1) pound.
 - 2. Ammunition shall be constructed of the following materials:
 - a) Open-cell foam
 - b) Closed-cell foam
 - c) Tennis balls (may be punctured)
 - 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, PVC reinforcement rings
 - 3. Siege projectiles will be capable of killing through shields (provided that the scenario rules permit this). Unless specifically stated by scenario rules, any ammo other than four-tennis ball clusters, one-pound rocks, or javelins will not 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. 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).
 - a) One pound 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.
 - 5. 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)
 - 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. 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) 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 a yellow spiral the length of the shaft.

- 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. Avoid excessive weight. PVC is not shatter-resistant and is not considered legal for ballista javelins.
 - 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.
- F. Crew Requirements
 - 1. Siege crews are classified as non-contact combatants.
 - 2. Crews must be authorized in armored combat as fighters or combat archers.
 - 3. Crews must be armored AT LEAST to the minimum requirements for non-contact combatants.
- G. 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

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
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.