



ADRIAN EMPIRE
IMPERIAL ESTATES WRIT #36
SIEGE WEAPON MANUAL

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PREFACE

This manual's purpose is to provide a foundation for the safe and effective use of siege weapons in the Adrian Empire. Its purpose is also to take into consideration the historical appearance and functionality of the weapons we use. This manual will attempt to encompass as many devices into the rule structure of the Adrian Empire as allowed for safety. These rules shall make it possible to use siege equipment. Including but not limited to Magolets, Onagers, Trebuchets, Belly Bows, Ballista's, Scorpions, Cannons, Pavises, Manlets, Boats, Siege Towers, Towers and Castles. The uses of such weapons are for enjoyment only and may not be used in contested Crown Wars. The presiding Minister of Joust and War at any Sanctioned War shall have the authority to support or deny use of such weapons as conditions warrant.

I. OVERALL FIELD RULES

Siege Warfare is a very different concept of combat than regular troop movements in an open field. To address such effects the following general rules apply to all forms of siege warfare,

A. REALISTIC COMBAT

The purpose of the Adrian Empire is to teach. Therefore all siege weapons and their counterparts must conform to historical accuracy. The purpose is to recreate what was. All machines constructed under this manual shall be subject to this requirement or removed from the field.

B. DEPLOYMENT ZONES

Each army shall be assigned a deployment zone in which it may set up its forces. No army may set up any equipment outside their zone. Deployment zones shall be defined by the marshals and shall be in accordance to army size.

C. MAX. NUMBER OF MACHINES

To keep a realistic effect an army may have 1 war machine for every 10 non-crew combatants in field battles.

D. BEFORE COMBAT INSPECTION

All Siege Weapons and Missiles are subject to inspection prior to its use and the crew must re-inspect equipment between rounds for safety issues. It is paramount to look for wear in roping and cracks in wood.

E. OPTIONAL RULES

Marshals may impose special rules as they deem warranted for the fun, safety and a realistic effect of all.

II. WAR MACHINES

Siege weapons are broken down into two categories.

A. TYPES OF WEAPONS

1. TYPE 1 WEAPONS

Counterweight machines, (simulated explosive-powered artillery) shall be designed to deliver missiles to a range between 40 and 80 yards.

- a. Type 1 Weapons, can use all approved Siege Type missiles.
- b. Type 1 weapons shall:
 - i. Be able to deliver a large siege missile at least 40 yards.
 - ii. Have a mechanical cocking device, such as a winch or windlass or trigger and may not be cocked by hand.
 - iii. Have a minimum crew of 3 people. Should crew number fall below minimum, the siege weapon will not be operated.
 - iv. Be able to fire Type 1 missiles, multiple Type 2 missiles,

2. TYPE 2 WEAPONS

- a. Spring, torsion and twin torsion machines, shall be designed to deliver small siege missiles to a range between 40 and 80 yards.
- b. Type 2 weapons shall:
 - i. Be able to deliver a small siege missile at least 40 yards.
 - ii. Have a mechanical cocking device, such as a winch or windlass and trigger. Man powered trebuchets are exempt from this requirement.
 - iii. Have a minimum crew of 2 people. Should crew size fall below minimum, the weapon will not be operated.
 - iv. Be able to fire Type 2 missiles.
 - v. Not use any missile larger than Type 2 missiles.
 - vi. Man-powered trebuchets will be considered Type 2 weapons and must meet the requirements stated.

B. LIMITATIONS OF MACHINES

1. General Limitation

- a. No engine will be discharged while any non-crew person is within 7 feet of the travel path of moving parts
- b. Machines may not be moved while armed or loaded
- c. Maximum rates of fire: While it would be preferable to not have to impose any arbitrary maximum rate of fire, the concept of use is to promote semi realism and to promote fair game play. The following guideline should be used and any abuses addressed by the presiding Marshall: Type 1 engines should be allowed to fire no more than 1 time per minute and Type B engines should be allowed to fire no more than 2-3 times per minute.
- d. Range markers shall be placed at 7 and 30 feet from the firing position of each weapon in use.

3. Direct Fire Weapon Limitations
 - a. A direct fire weapon is any that fires its ammunition in a straight line towards Its opponent (i.e. belly bow, ballista, cannon, low arc trebuchets)
 - b. Direct-fire weapons shall not be discharged against combatants within a range of 30 feet.
 - c. Direct fire machines (Ballista's and Cannons) must call out opponent and fire blank round for anyone within 30 feet
4. Indirect Fire Weapons
 - a. An indirect fire weapon is any that weapon that lobs its ammunition towards the target.
 - b. Indirect fire machines cannot target an opponent within 30 feet.

C. CONSTRUCTION OF WEAPONS

1. Machines may not use compressed or ignited gasses or liquids or combusting materials of any kind to power projectiles.
2. Builders should attempt to visually and functionally recreate period siege weapons. Weapons shall be powered in a manner functionally consistent with their period counterparts.
3. All modern materials must be hidden or disguised
4. Except for man-powered trebuchets, all siege engines will be fitted with an appropriate mechanical trigger mechanism that shall be used for every shot.
5. Turnbuckles and eye bolts. When used in or attached to the source of power for a weapon, these items shall be rated to withstand 150o/o of the forces produced (e.g., if the cable attached to a turnbuckle will support 100 pounds of tension, the turnbuckle will be rated at 150 pounds static load). Hardware stores and home center hardware is often of low quality and rating, while aircraft or marine hardware is generally more appropriate.
6. Steel wire and cable, shall not be used as a bowstring or for any active part of any type of siege weapon.
7. All softwoods and non-laminated hardwoods when used as the throwing arm for a catapult, trebuchet, or torsion ballista, shall be secured against breakage with a minimum of glue-soaked sisal or jute cord wrapping (2-inch wraps every 6 inches) over a section of rope glued 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.
8. Weapons shall be durable enough to survive the rigors of combat and while they should not be struck with hand weapons, they should withstand either being struck with a full-force blow or being run into by a combatant.
9. All weapons must be free-standing and may not use an operator as part of their support structure.

D. AMMUNITION

Shall be divided into two categories

1. Type 1 Missiles
 - a. Type
 - i. Boulders
 - ii. Cannon Balls
 - iii. Other ammo; representing missiles weighing more than 75 lbs.
 - b. Parameters:
 - i. Must be made of non-metallic material (rubber balls, tennis balls, etc.)
 - ii. Must provide realistic effect
 - iii. Maximum weight of 2 pounds
 - iv. Must be larger than 10 inches in diameter
 - c. Damage Results:
 - i. All Type 1 missiles are considered unobstructed until missile comes to a complete stop.
 - ii. May not be blocked by shields or screens (blows to such kill anyone within 5 feet behind screen)
 - iii. May only be blocked by walls
 - iv. All blows destroy other siege machines, screens and towers.
2. Type 2 Missiles
 - a. Type
 - i. Rocks
 - ii. Grape Shot
 - iii. Ballista Bolts
 - iv. Other ammo; representing missiles 75 lbs. and lighter
 - b. Parameters:
 - i. Maximum weight of 1 pound
 - ii. Must be smaller than 10 inches in diameter
 - iii. Must provide realistic effect
 - iv. Must be made of non metallic material (rubber balls, cloth dolls, etc.)
 - c. Damage Results:
 - i. All Type 2 missiles are considered unobstructed until missile comes to a complete stop.
 - ii. May not be blocked by shields
 - iii. Large screens and walls stop missile movement
 - iv. 3 strikes disable large screens
 - v. All blows destroy other siege machines and small screens

E. CONSTRUCTION OF MISSILES

1. Ballista Bolts;
 - a. Bolts are made the same way as Javelins.
 - b. Fletching must be added of soft material without sharp edges (plastic may be used if edges are covered with Duct Tape)
 - c. Bolts must be either painted yellow or distinctively marked Yellow. (To differentiate from Javelins).
 - d. Bolts must be between 24 and 48 inches long.
 - e. Tubes may be reinforced with medium density foam or pool noodle
 - f. Tubes may have a less than 2 knot insert not made from hardwood or metal
2. Alternative Missiles:

Are intended to simulate optional missiles or thrown items (e.g., flaming oil pots and diseased animal corpses or the heads of decapitated messengers). Alternative missiles will have damage determined in the scenario rules. Most effect weapons will have little or no damage potential. Alternative missiles may be used as long as it does not exceed the weight or construction limitations of the Type 1 and Type 2 missiles.

F. CREW OPERATIONAL RULES

1. Crew must remain within 5 feet of machine.
2. Any Crew that leaves machine for any reason is no longer crew.
3. Any combatant that lays down personal arms may become crew.
4. Crew may abandon machine, pick up personal arms and become a combatant.
5. Crew members are treated as archers during combat
6. Crew members may not abandon armed/loaded machine for any purpose including defense
7. War Machines cannot fire if anyone (except crew) is within 7 feet of weapon
8. Anyone operating a siege engine in combat will be armored to at least the minimum standards for the type of combat engaging in.
9. For Steel scenarios, Crew may use heavy leather gloves or Demi Gauntlets. Crew choosing this option shall be considered equivalent to archers and must remain as such for entire scenario. (They may not switch out gauntlets or engage in hand to hand combat).
10. Siege engine crews shall be made up of members who are authorized in siege and are familiar with the engine that they are operating.
11. Siege engine crews shall inspect their engine for wear, stress, and fatigue before each battle and, if possible, during holds.
12. During holds, siege engine crews may not cock, load, move, or in any other way make their engine ready. Missiles must be removed to prevent accidental firing during hold.
13. Siege engine crews shall immediately secure their engine should it become unsafe. (They will remove the engine from the field at their earliest opportunity).
14. Siege engine crews are responsible for the safe operation of their engine during combat. They are to make sure that crew members are clear of moving parts and that non-crew personnel are not directly in front of the engine and not within 5 feet of the travel path of moving parts before discharging their weapon.

III. DESTROYING SIEGE WEAPONS AND STRUCTURES

A. CAUTION

As siege weapons can pose many risks, caution must be exercised when approaching them. Combatants must be sure to stay clear of moving parts and try to approach them from the side. When engaging weapons and structures.

"They must not be struck with handheld weapons. "

While items should be constructed to withstand blows, an accidental discharge of the weapon may result. Anyone found intentionally striking a siege weapon or structure should be removed from the field.

B. HOW TO DESTROY

The proper way to destroy these weapons is to safely approach the weapon or structure, lay your weapon on it, and declare:

"This weapon is destroyed"

(As with a declared death from behind) This shall be done in a safe and deliberate manner, not in a rush while engaged with another opponent. Unarmed Crew may be killed as an unarmed or helpless opponent; if they yield, do not strike them. Fighting should never take place over or around an active siege engine. If this situation arises, a hold should be called and the engine declared destroyed. Siege weapons and structures may also be destroyed by siege class munitions fired from a siege engine.

IV. SCREENS

A. TYPES

The types of screens to be used in combat involving siege weapons must be stated before battle and cannot change.

1. Small Screen
 - a. Simulates man sized defenses designed to protect against regular missiles
 - b. No minimum crew
 - c. May be moved
 - d. Maximum height 8' (6 foot face)
 - e. Maximum width 4'
 - f. Max depth 6'
2. Large Screens
 - a. Simulates larger than man sized defenses designed that protect against small siege missiles
 - b. Minimum height 6'
 - c. Minimum width 3'
 - d. Minimum depth 3'
 - e. May only move if has wheels and minimum 3 crew

B. CONSTRUCTION

1. Parameters
 - a. Small Screens must be made same as a Shield
 - b. Large Screens may be made same as a shield or other materials marshal deems safe.
 - c. Non period materials must be disguised
 - d. Exposed edges must be bound in Leather or shield equivalent
 - e. Viewing holes and weapon ports are allowed, however arms are not allowed through these openings.
 - f. No angles less than 60 degrees from Ground

C. GENERAL RULES

1. If the machine is destroyed, it must be taken off the field or lay on face
2. No shield bashing
3. If the machine is destroyed, the crew is also killed.
4. If the machine is disabled, it may not move for remainder of battle.

V. STRUCTURES

A. FIXED, TEMPORARY OR OUTLINES

1. Fixed structures are existing buildings that are permanently on the site D.A Temporary structure is one that is assembled for the day.
2. An Outline structure is one that does not really exist but the outline is drawn on the floor.

B. PLACEMENT

Owned Structures are to be placed only in the deployment zone

C. CONSTRUCTION

All structures will be examined for safety and approved by a marshal.

D. SIEGE STRUCTURES SHALL

1. Be able to support 300 pounds for every 4 square feet of platform area.
2. Be equipped with railings or walls at least 36 inches tall and able to support 100 pounds per foot of railing length if the platform is more than 3 feet from the ground.
3. Be structurally stable (e.g., a wheeled siege tower should have a base big enough and wheels large enough to safely carry crew over the terrain of the field). Battering rams and battering structures are permitted, but should be durable enough to withstand repeated impacts and light enough to be safe when carried or if dropped.
4. Structures should be able to stand without support
5. Structures should be sturdy enough to withstand combat and accidental blows.

VI. NAVAL

A. CONSTRUCTION

1. Movable representations
 - a. Frames and masts made of steel, wood or PVC.
 - b. Skirts made of heavy canvas (or equivalent)
 - c. no ropes or rigging allowed for safety
2. Fixed representation & Outlines
 - a. Yz plywood floor
 - b. Outlines drawn on ground.
 - c. Pallets covered with Yz plywood
3. Real Boats
Not allowed

B. CREW

1. Minimum crew to move ship is 1 person for each 5' length of ship
2. Crewmen row (carry) by lifting frame in one hand.
3. Crew may move ship when all minimum crew have lifted frame to waist height.

C. GENERAL RULES

1. Ships may only move in a direction consistent with the movements of period ships under sail.
2. Fixed representations & outlines may not move and are always considered on ground for other rules.
3. No bashing with moving ships. Any contact is considered a ram and stops forward movement of ships
4. No gripping, grabbing or intentionally damaging enemy ships
5. If crew brought below minimum numbers frame must be placed on ground
6. Any legged combatants may stand and move while ship is moving, but must go back to their knees when the ship stops.

D. GRAPPLING & BOARDING

1. If two ships come to rest (not moving and on ground next to each other) they are considered grappled.
2. Ships may only be boarded (and exited) while frames are on ground

E. SWIMMING

1. How to find yourself swimming
 - a. If Ship is destroyed all crew and passengers are swimming
 - b. If a combatant exits a ship into the water
 - c. If a combatant exits the land into the water
 - d. If a combatant attempts an unsuccessful boarding of another ship.
2. How to swim
 - a. Steel Combatants - cannot. They sink.
 - b. Combatant must move on their knees and cannot engage in combat.
 - c. Swimmers may be called out same as death from behind.
3. How to get out of the water:
 - a. Swim to land (if any)
 - b. Swimmers may reenter stopped ships on the ground.

GLOSSARY

- Arbalest** --- A tension-powered ballista (giant crossbow)
- Ballista** --- A two-armed, torsion- or tension-powered, arrow- or rock-throwing, direct-fire siege engine
- Ballista bolt** --- A spear-like projectile shot from a ballista
- Catapult** --- A single-armed, torsion- or tension-powered, rock-throwing, indirect-fire siege engine.
- 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
Effect
weapons Novelty missiles, such as simulated animal parts, usually with no real damaging ability
- Eyebolts** --- Hardware resembling a bolt formed into a circle on the non-threaded end
Indirect fire
Delivery of a missile in a high, arcing trajectory ending at the target
Light-density foam.
Foam weighing up to 1/2 pound per cubic foot
- Mangonel** --- A man-powered trebuchet
- Man Powered** --- An engine in which the mechanical energy to launch the projectile is supplied directly by people, pulling on ropes for example, rather than being stored mechanically (i.e. by a spring or raised counterweight) for later release.
- Mechanical trigger device** --- A device used to hold the engine in a braced or cocked state and to activate (shoot) the weapon
- Medium-density foam** --- Foam weighing between 1/2 and 4 pounds per cubic foot
- 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.
- Siege structures** --- Devices such as towers or ramps that are used to support personnel, but are not fitted with active weaponry
- Specialty missiles** --- Special-purpose missiles, such as simulated flaming missiles
- Trebuchet** --- A gravity- or man-powered, sling-type, rock-throwing, indirect-fire siege engine
Turnbuckle Hardware consisting of 2 eyebolts 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.