DICEFORGE STUDIOS

BATTLE FORGE

COMPANION GUIDE

Vehicle Combat Simulator for Savage Worlds
Pick your vehicles. Draw initiative. Open fire.

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DiceForge Studios Ltd.

Credits & Legal

Writing & Design: DiceForge Studios Ltd.

Battle Forge Tool: DiceForge Studios Ltd.

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You will need the Savage Worlds core rules to use this product.

Introduction

> *"Two ironclads met in the fog off Saltmere. Only one limped home.*
> *The harbour master didn't ask who won — he asked which hull was*
> *still above the waterline."*
>
> — Dockmaster Bryn, Port Saltmere

Welcome to the Battle Forge Companion Guide — your complete reference for running vehicle-on-vehicle combat using the Savage Worlds game system. The Battle Forge is a free, standalone HTML tool that runs in any modern browser. Load two vehicles, draw initiative, and let the dice decide.

Battle Forge handles the full Savage Worlds vehicle combat sequence: card-based initiative from a shuffled 54-card deck, Shooting rolls with trait and Wild Die, exploding damage dice against Toughness, wound tracking with cascading penalties, Out of Control checks, and Critical Hits that shred systems, injure crew, and wreck vehicles in spectacular fashion.

This guide covers everything you need to get the most from the tool. The opening section walks through the interface. The following sections explain how the combat engine works, what the tables mean, and how to read the combat log. The final section offers tactical advice for setting up interesting fights.

Design Philosophy

Fast, Furious, Fun

Savage Worlds lives by those three words, and so does Battle Forge. Every roll is automated but transparent — the log shows you exactly what happened, which die was used, and why. The tool handles the arithmetic so you can focus on the drama.

Transparent, Not Opaque

Battle Forge never hides a roll. Every attack line in the combat log shows the trait die, Wild Die, which was used, any modifiers, the damage dice, and the comparison against Toughness. If something looks wrong, you can trace exactly where the numbers came from. This is a GM's tool, not a black box.

The Engine Is Faithful

The combat engine implements Savage Worlds vehicle combat rules as written. Dice explode on Aces. The Wild Die competes with the trait die and the better result is used. Wound penalties stack and apply to subsequent rolls. Raises on attack rolls add a bonus damage die. If you know Savage Worlds, you know what Battle Forge is doing.

The Interface

Battle Forge uses a three-panel layout. Two vehicle cards flank a central combat log. The left panel shows Vehicle A, the right panel shows Vehicle B, and the centre column records every roll, hit, miss, wound, and explosion as the fight unfolds.

Vehicle Panels

Each vehicle panel displays the vehicle's name, classification code, size, locomotion type, core stats (Toughness, Handling, Wounds, Class), mounted weapons with damage and rate of fire, a wound tracker with LED-style indicator pips, and a crew quality selector.

The wound tracker uses illuminated pips that glow red as wounds accumulate. Empty pips appear as dark, recessed sockets. When all wound pips are filled, a **WRECKED** badge appears beneath the tracker, and the vehicle is removed from combat.

The Combat Log

The central column is where the fight happens. Each round opens with a round header showing the round number, followed by initiative card draws for both vehicles. Attack lines are colour-coded: hits appear in amber, critical results in red, and misses in muted text. The log scrolls automatically as combat progresses.

Every attack line follows the same format: vehicle name, weapon fired, trait die result, Wild Die result (with an arrow indicating which was used), any modifiers, the final roll against TN 4, and the outcome. On a hit, damage dice are shown with their individual results, compared against the target's effective Toughness after accounting for Armour Penetration.

Controls

Fight resolves a single round of combat. Both vehicles draw initiative cards, act in order, and fire all mounted weapons. **Auto (10 rounds)** runs up to ten consecutive rounds, stopping early if either vehicle is wrecked. **Reset** clears the combat log and restores both vehicles to full health. **Copy Log** copies the complete combat transcript to your clipboard in plain text.

Loading Vehicles

Vehicles can be loaded into Battle Forge in two ways. The vehicle picker at the top of each panel lists all armed vehicles available from your installed vehicle packs. Click a drop zone, select a vehicle, and it loads into that panel with full stats and weapons.

Alternatively, vehicles can be sent directly from the Vehicle Forge. When building or browsing a vehicle in the Vehicle Forge, the ⌘ send button transfers that vehicle to an open Battle Forge tab via cross-tab messaging. The vehicle appears in the next available panel, ready to fight. No export, no file, no copy-paste — just click and it's there.

> **TIP:** *Open the Vehicle Forge in one tab and Battle Forge in another. Build a custom vehicle, send it across, and test it in combat immediately. This is the fastest way to validate whether a homebrew vehicle is balanced.*

How Combat Works

Battle Forge follows the Savage Worlds vehicle combat sequence faithfully. Each round proceeds through initiative, actions, and resolution.

Initiative

At the start of each round, both vehicles draw a card from a standard 54-card deck (52 standard cards plus two Jokers). Cards are ranked in poker order: 2 is lowest, Ace is highest, with suits breaking ties in the order clubs, diamonds, hearts, spades. The vehicle with the higher card acts first.

The deck is built and shuffled at the start of combat using a Fisher-Yates shuffle. Cards are drawn without replacement. When the deck runs low, it reshuffles automatically — just as a real dealer would.

Drawing a Joker is significant. The Joker grants **+2 to all trait rolls and damage** for that round, and the vehicle holding it always acts first regardless of the other card drawn. The Joker bonus appears highlighted in the combat log when it triggers.

Shooting

Each weapon on the attacking vehicle fires independently, rolling once per point of Rate of Fire. The roll uses the crew's Shooting die (set by Crew Quality) plus a Wild Die (d6). Both dice explode on their maximum value — a 6 on a d6 rolls again and adds, a 10 on a d10 rolls again and adds, with no ceiling. The higher of the two results is used, and the combat log marks the chosen die with an arrow.

The target number is always 4, modified by range penalties and wound penalties. On a success (4+), the attack hits. Every full 4 points above the target number is a Raise, which adds a bonus die to the damage roll.

> **TIP:** *Crew Quality matters enormously. A Veteran crew (d8) hits on a raw 4 and can Ace into double digits. A Green crew (d4) needs to explode just to connect reliably. When setting up fights, crew quality is as important as the vehicle's stat block.*

Damage

On a hit, the weapon's damage dice are rolled. All damage dice explode on Aces. If the attack scored a Raise, one additional die of the weapon's type is added to the roll. The total is compared against the target's Toughness, which is the sum of structural strength and Armour. Armour Penetration (AP) on the weapon reduces the target's Armour value before comparison.

If damage equals or exceeds Toughness, the vehicle is **Shaken** (represented in Battle Forge as an Out of Control check). Every full 4 points of damage above Toughness inflicts a Wound. A vehicle that exceeds its wound capacity is **Wrecked**.

Wound Penalties

Each wound a vehicle has taken applies a cumulative −1 penalty to all subsequent Shooting rolls, capped at −4. This penalty also applies to Out of Control checks, creating the characteristic Savage Worlds death spiral: a wounded vehicle shoots less accurately, fails more OOC checks, takes more wounds, and shoots even worse. Fights tend to end quickly once the first wound lands.

> **TIP:** *The death spiral is deliberate and central to Savage Worlds combat design. It rewards the vehicle that strikes first and makes even small advantages compound rapidly. If your fights are dragging past five or six rounds, the weapon damage is probably too low relative to the target's Toughness.*

Out of Control

Whenever a vehicle takes damage that equals or exceeds its Toughness (whether or not it causes a Wound), it must make an Out of Control check. The driver rolls a trait die plus Wild Die, applies wound penalties, and checks the result against TN 4. On a success, the driver keeps control. On a failure, roll 2d6 on the Out of Control table.

The 2d6 roll on the OOC table is not exploding — it produces a flat result between 2 and 12.

Out of Control Table

2d6	Result	Effect
2	Catastrophic Impact	The vehicle ploughs into something solid. Crew rattled, hull buckled. Deals d4 Wounds and triggers a Critical Hit.
3–4	Glancing Impact	Metal screams as the vehicle clips an obstacle. Suffers a Wound and triggers a Critical Hit.
5–9	Loss of Control	The vehicle lurches violently. Crew thrown about, unable to focus until they recover.
10–11	Exposed	The vehicle slews sideways, presenting its flank. Easier to hit until the crew corrects.
12	Mechanical Fault	A component fails under the strain. Triggers a Critical Hit.

> **TIP:** *The 5–9 band (Loss of Control) is the most common result, covering five of the eleven possible outcomes. The dramatic results — Catastrophic Impact at the bottom, Mechanical Fault at the top — are rare but devastating. A Catastrophic Impact can deal up to 4 additional Wounds in a single roll, potentially wrecking a vehicle outright.*

Critical Hits

A Critical Hit is rolled whenever a vehicle takes one or more Wounds from a single attack. It also triggers from Glancing Impact and Catastrophic Impact results on the OOC table, and from a Mechanical Fault. Roll 2d6 (flat, non-exploding) and consult the Critical Hit table.

Critical Hit Table

2d6	Result	Effect
2	Superficial	Sparks fly and paint peels, but nothing vital is touched. Cosmetic damage only.
3	Steering Damaged	Controls are sluggish. Handling worsens by 1.
4–5	Drive System Hit	Power train, engine, or propulsion takes a hit. Top Speed drops by 10%.
6–8	Structural Hit	A solid blow to the frame. The hull absorbs it with no special effect.
9–10	Crew Casualty	Shrapnel or impact injures a crew member.
11	Armament Wrecked	A weapon mount is shattered beyond use. One weapon out of action.
12	Systems Failure	An onboard system is knocked offline.

Structural Hit (6–8) is the most common Critical result, covering three of the eleven outcomes. It deals no special effect beyond the wound already inflicted. The results that matter are at the extremes: Drive System Hits degrade performance, Crew Casualties remove operators, and Armament Wrecked strips away firepower. A vehicle that loses its only weapon is still in the fight but can no longer shoot back.

Crew Quality

The Crew Quality selector on each vehicle panel determines the die type used for Shooting rolls and Out of Control checks. Five tiers are available:

Crew Quality	Die	Typical Use
Green	d4	Raw conscripts, panicked civilians, first-time drivers. Need to explode just to hit.
Average	d6	Trained crew, competent drivers, professional soldiers. The default for most encounters.
Veteran	d8	Experienced combat crews, elite pilots, seasoned captains. Hit reliably even at range.
Elite	d10	Top-tier operators. Ace fighter pilots, legendary tank commanders, named NPCs.
Legendary	d12	The best in the world. Reserved for campaign villains and climactic encounters.

The Wild Die is always d6 regardless of crew quality. This means a Green crew (d4) actually relies on the Wild Die more often than the trait die, while a Legendary crew (d12) almost always uses the trait die. The gap between crew tiers compounds over multiple rounds — a Veteran crew's +1 die step advantage means roughly 12% more hits per attack, which across six weapons and three rounds of combat adds up to significantly more wounds dealt.

> **TIP:** *Match crew quality to the narrative. A rusty patrol boat crewed by harbour guards is Green. The pirate captain's flagship is Veteran or Elite. The difference in lethality is dramatic and gives you a simple lever to tune encounter difficulty without changing the vehicles themselves.*

Reading the Combat Log

The combat log is designed to be read quickly during play and analysed in detail afterwards. Here's how to parse a typical attack line:

Anatomy of an Attack Line

FRANKENSTEIN APC — the attacking vehicle.

Heavy Machine Gun fires. — the weapon used.

[6→4!] [W:5] ← = 10 — trait die rolled 6, exploded to 4 (total 10). Wild Die rolled 5. The arrow (←) points to the Wild Die but the trait die total was higher, so the 10 is used. Final result: 10.

Hit with a Raise! — the roll exceeded TN 4 by 4+, scoring a Raise. One bonus damage die is added.

Damage: 25 [10→5!, 5, 5] — total damage 25. Individual dice: first die rolled 10, exploded to 5 (total 15), second die rolled 5, Raise bonus die rolled 5.

vs Toughness 16(2) AP 4 → effective 14 — target Toughness is 16, of which 2 is Armour. The weapon has AP 4, which exceeds the Armour, reducing effective Toughness to 14.

2 Wounds! — damage exceeded effective Toughness by 8+ (two Raises worth), dealing 2 Wounds.

The arrow symbol (←) always appears next to the Wild Die. It indicates that the Wild Die value was selected as the better result. When no arrow appears, the trait die was used.

Initiative Cards

Battle Forge displays drawn cards as miniature playing cards above the combat log. Each card shows its rank and suit in the vehicle's colour. The vehicle with the higher card acts first, with the winner's card highlighted with a gold border glow.

Suits break ties in ascending order: clubs (lowest), diamonds, hearts, spades (highest). This means the King of Spades always beats the King of Hearts, and the 2 of Spades beats the 2 of Clubs.

Jokers display with a distinctive highlight and the message **"[Vehicle] has a Joker! +2 to all rolls!"** in the initiative line. The +2 bonus applies to every Shooting roll and every damage roll for that vehicle for the entire round. Jokers always act first — if both vehicles draw Jokers, the Red Joker acts before the Black.

> **TIP:** *In Savage Worlds, a Joker also triggers a deck reshuffle at the end of the round. Battle Forge handles this automatically.*

Setting Up Good Fights

"The best battles end in three rounds. Long enough for drama, short enough for fun."

— DiceForge Studios internal playtesting notes

The Toughness Gap

The single most important factor in fight duration is the gap between weapon damage and target Toughness. When a weapon's average damage comfortably exceeds the target's effective Toughness (Toughness minus AP), fights resolve in two to four rounds. When the gap is narrow or inverted — when weapons can barely scratch the target — fights become grinding wars of attrition that can drag past ten rounds.

As a rule of thumb, a weapon should be able to deal at least one Wound on a good roll (not requiring multiple explosions) against its intended target. If the only path to damage is through extraordinary luck, the matchup is wrong for an interesting fight.

Asymmetric Matchups

The best fights are not mirror matches. A heavily armoured but slow-firing vehicle against a fragile but rapid-firing opponent creates drama — the glass cannon needs to overwhelm the tank before the tank's single big gun connects. Crew quality asymmetry works the same way: a Green crew in a powerful vehicle against a Veteran crew in a weaker one creates tension around whether skill or firepower decides the outcome.

Crew Quality as Difficulty Dial

If a vehicle matchup feels too one-sided, adjust crew quality before changing the vehicles. Dropping the stronger vehicle's crew from Veteran to Average reduces its hit rate by roughly 12% per attack, which compounds across multiple weapons and rounds. This is faster and more precise than redesigning stat blocks.

The Death Spiral

Once a vehicle takes two or more wounds, the -2 penalty to all rolls makes it significantly harder to hit back and significantly more likely to fail OOC checks. Fights that are close through the first two rounds tend to become decisive very quickly once one side pulls ahead. This is working as designed — Savage Worlds combat is meant to snowball.

> **TIP:** *If you want longer, more dramatic fights, use vehicles with more Wound capacity. A vehicle with 4 Wounds can absorb two hits before the death spiral becomes severe. A vehicle with 2 Wounds is in crisis after a single good roll.*

What Comes Next

Battle Forge is a living tool. The current release handles core vehicle-on-vehicle combat faithfully, but the Savage Worlds rulebook has more to offer. Future versions may include Soak rolls (spending Bennies to cancel Wounds), Heavy Armour rules (weapons that simply cannot hurt certain targets regardless of damage), and linked weapons (multiple mounts firing as a single attack for concentrated damage).

The combat engine will grow alongside the vehicle pack ecosystem. As new packs bring new weapon types and vehicle classes into the Forge, the Battle Forge will be there to test them.

Now go pick a fight.

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