GURPS® Fourth Edition

VEHICLES

STEAMPUNK CONVEYANCES™

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Rules and statistics in this book are specifically for the *GURPS Basic Set, Fourth Edition.* Page references that begin with B refer to that book, not this one.

INTRODUCTION

Steampunk is a genre defined by technology, including vehicles, whether in the sense of detailed and logical explorations of possible alternative historical development paths, or of *really cool* visual design providing a strong period flavor. Hence, the appearance of the new **Steampunk** series for **GURPS** *Fourth Edition* is the cue for a lot of treatment of steampunk technology in **GURPS** terms.

So, this book of vehicles, both historical and fantastical is linked to the previously published **GURPS Steampunk 1: Settings and Style,** although it does not require that volume for use; vehicles from here could appear in all manner of games. The realistic vehicles are from TL5 or TL6; the more fantastical creations come from a range of divergent and alternate tech paths. For more divergent-technology vehicles, some of them suitable for use in wilder clockpunk games, see Chapter 2 of **GURPS Fantasy-Tech 1: The Edge of Reality.**

TERMINOLOGY AND CONCEPTS

This supplement uses some specialized terms and concepts, many of which are discussed in more detail in **Steampunk 1.**

Aeronef: A heavier-than-air aircraft.

Aerostat: A lighter-than-air craft such as a balloon or airship.

Cinematic Technology: Technology which makes for dramatic stories and is given more or less plausible explanations, but which would be totally impossible according to modern scientific understanding. One example is the incredibly powerful batteries which power Robur's *Albatross* (p. 16). Steampunk cinematic technology may have period superscience explanations embedded in the description, or may just involve vehicles or gadgets with wildly optimistic performance.

Dime Novels: A type of low-cost, mass-produced popular fiction published in the United States in the late 19th century, sometimes featuring amazing inventions.

Dirigible: Any lighter-than-air craft that can be steered.

Effective TL: Steampunk games and settings often make use of the idea of divergent tech levels (p. B513). In such cases, the *effective TL* is a TL value equal to the sum of the two parts of the prevailing TL. For example, a TL(5+2) world has an effective TL of 7.

Period Superscience: Many steampunk game devices use the superscience designator ^. However, rather than representing some branch of science or technology that *might* be real or feasible but which hasn't been discovered yet, *period superscience* involves ideas that were once seriously proposed and perhaps accepted, but which have now been disproved

or superseded. Some whole historic fields of study, such as alchemy, now rate as period superscience.

Raygun Gothic: The style of design and imaginary technology associated with "pulp" science fiction, from the period 1918-1939. This is, strictly speaking, later than the steampunk period as usually defined – but the style, characterized by flying helmets, goggles, and ornate devices including rayguns, is popular with steampunk artists and costume designers.

Scientific Romances: Science fiction from the late Steam Age, before the term "science fiction" was invented, especially relating to British works.

The Steam Age: The period from 1789 to 1914, also sometimes known as the "Long 19th Century."

Zeppelin: A rigid-bodied airship.

Reading Vehicle Stats

The vehicle details tables in this supplement follow the format defined on p. B463. "Crush" is crush depth, in yards, for a submarine; few submariners will venture deeper than half that depth, and diving beyond crush depth will soon lead to hull failure and death, at the GM's whim. Variations and complications are discussed in the table notes; in particular, many vehicles have different DR on different components. Weapons are detailed in Chapter 2 (pp. 18-19).

PUBLICATION HISTORY

This is the first edition of **GURPS Vehicles: Steampunk Conveyances.** Some of the vehicle concepts here previously appeared in the original **GURPS Steampunk** or **GURPS Steam-Tech,** but the details have been revised to fit with the new edition of **GURPS.** Likewise, some weapon details are borrowed from the current edition of **GURPS High-Tech.**

ABOUT THE AUTHOR

Phil Masters is the author of **GURPS Steampunk 1: Settings and Style,** as well as several other **GURPS** books and an roleplaying game of his own creation, **The Small Folk.** He mostly has the computational engines which share his study under some manner of control, and his personal automobile performs much as its engineers – fine craftsmen from the German States – intended.

A hardworking engineer hasn't an opportunity every day to exercise his talents in this fantastic way, and add an animal of this description to the creations of the "Arabian Nights."

– Jules Verne, **The Steam House**

Steam Tricycle

Late in the 19th century, the French De Dion-Bouton company produced a range of steam vehicles. Their steam tricycles were a modest commercial success in the 1880s, and they make good models for handy, cheap individual transportation for steampunks. (The company also built slightly larger two- and four-seat, four-wheeled vehicles, with broadly similar performance.) They were completely open, with the boiler mounted between the two front wheels. A full load of 30 lbs. of coal costs $0.60.

A TL(6+1) evolution of the design might have better Hnd, SR, HT, and Move; however, De Dion-Bouton switched to internal combustion engines in the 1890s.

STARTING STEAM

One of the lesser drawbacks with steam engines, when compared with internal combustion, is that it takes a while to start from cold. In early designs, a whole tank of water has to be heated to near boiling point, which takes a while even with efficient burners and good fuel; startup times could be 20-30 minutes. The TL6 development of the "flash boiler," which heats smaller quantities of water as it is pumped through narrow tubes, made domestic steam cars more practical, although parts of the engine still have to be heated up; the most advanced models could supposedly start in 40 seconds flat. However, once internal combustion engines were fitted with electric starter motors, they had steam completely beaten.

This is a relatively minor concern for most drivers – at worst, they just have to remember to start the car warming a few minutes before their journey – but for action heroes, it could be a serious embarrassment. It's not a problem if you stopped the car within the last few minutes; the engine will still be warm. Chasing the villains in a car that's been sitting overnight, however, is trickier.

The GM who doesn't want to just ignore this problem can add fictional "fast start technology" to their game steam engines. For example, a pushbutton mechanism might dump a cartridge of reactive chemicals into the boiler, while a brief blast of intense flame heats the engine structure. Anything along these lines would surely be quite dangerous, though, involving scary chemicals, intense heat, and surges of high pressure. Mechanic (Steam Engine) skill rolls may be needed to work the mechanism, and don't roll a critical failure!

Stanley Steamer

The various models built by the American Stanley twins between 1897 and 1924 represent the pinnacle of commercial TL6 steam-car production, reliable and relatively quick to start (always an issue with steam engines, which have to build pressure from cold; see *Starting Steam,* above). They were also very safe, never suffering boiler explosions; they were considered superior to early internal combustion engines with starting handles, which could "kick" dangerously. They competed on equal terms with internal combustion cars for some years, until the invention of the electric starter motor. A Stanley vehicle even set the world land speed record in 1906.

This is the successful Stanley Model 735 of 1918 to 1922 – technically just post-Steam Age, but something similar might be common in a steampunk world with slightly faster steam-technology development. It has aluminum bodywork over a steel frame, and runs on kerosene (a full 20-gallon tank costs $30). The quoted Range, however, is often limited by water load and is actually 150 to 250 miles, depending on circumstances. It can carry seven people, though that would probably make it a little cramped; a four-seat version (the Model 736) – with, presumably, better luggage capacity or performance – was also advertised.

Steam Wagon

Steam wagons (trucks) were widespread commercial (and occasionally military) workhorses in the early 20th century, especially in Britain, where coal was less heavily taxed than oil. Something similar might well appear a little earlier in a steampunk world. They varied widely in design, capacity, and performance; this is a mid-size 1920s design. Its Range is limited by the 200-300 gallons of water it carries; it will consume around 200-400 lbs. of coal in that distance (at a cost of $4-$8), depending on load, and can hold more if necessary in its cargo space. It usually carries up to six tons of cargo in a low-sided open bed, but it could be fitted with an enclosed compartment with space for around four tons of cargo, specialized liquid-carrying tanks, or a passenger compartment with seats for a dozen or so people – say, an infantry squad. It can also tow substantial loads. Cinematic adventurers might have one with accommodation for themselves, storage space for their gear, and miraculously improved Range.

FANTASTICAL LAND VEHICLES

These non-historical vehicles are examples of the kind of thing that might appear in steampunk settings.

The Steam Man of the Prairies

This invention appears in the 1868 dime novel of the same title by Edward S. Ellis. It is, in effect, a humanoid steam-powered tractor, made to look like a 10' tall man with a stovepipe hat (actually the funnel), a near-spherical body (the firebox and boiler), and a "knapsack" where the pressure valves are mounted. The "arms" are simply connections to the shafts of the cart which it tows. The feet have metal spikes on the underside, ensuring good traction on rough ground. The vehicle is quite robust, surviving collisions with walls and a buffalo, and can achieve 30 mph on roads or level ground. Its inventor calculates that it could actually manage twice that speed if it was drawing its cart on railway tracks. The controls are simple: two straps, which are pulled to make the "man" turn left or right, a pull cord connected to the pressure release valve, and another cord which operates a steam whistle mounted where the nose should be.

The four-wheeled cart carries supplies of water (fed through a pipe which runs along one of the shafts) and fuel; the fire has to be periodically fed through a panel in the "man's" belly. The cart can carry nearly a day's worth of water and a day's worth of wood or two days' worth of coal.

TORPEDO RULES

The naval "automotive" torpedo (in contrast to earlier uses of the word for unpowered weapons that would today be called mines) was a late Steam Age invention that allowed small craft to threaten the largest warships. The torpedoes in turn inspired navies to start mounting light, long-range guns on their warships to eliminate attacking torpedo boats, and to build "torpedo-boat destroyer" escort vessels.

Early torpedoes were unguided, slow, and unreliable. Some moved no faster than the vessels from which they were launched, but the technology evolved rapidly. Use the following rules if an early model torpedo is used in play, with the statistics on pp. 18-19.

A torpedo has a Move (in yards per second), a Range in yards (which is how far it travels before the motor gives out and it sinks), a damage rating for the warhead, and a Malf. number (p. B407). A malfunction means either that its motor fails at some point, or the warhead fails to detonate even if the torpedo does hit. (There's a 50% chance of either, if it matters; a good motor and bad warhead can at least force a frightened target into desperate dodges.)

Most Steam Age vehicles that are armed with torpedoes have fixed tubes firing ahead (or occasionally astern), and so have to be pointed at the target for a turn. When a torpedo is fired, the person in charge of the launcher makes an Artillery (Torpedoes) roll to hit, with the usual penalties for target speed and range and bonuses for size.

Success just means that the torpedo is heading for where the target will be when it arrives, other things being equal. If a target vessel's operator or bridge crew know that the torpedo is underway, either because they saw it being launched or because a very sharp-eyed lookout realized that a sneak attack was coming, they should try to *spot* it, requiring a Vision roll at +3 minus range modifiers from the operator or a crew member on the bridge who is doing nothing else, with one attempt permitted per turn. Once he knows where it is, the operator can attempt a Vehicular Dodge (p. B375), at +1 for every second that the torpedo has to run between when it is spotted and when it arrives. Alternatively, if the vessel is facing the right way or has time to turn, it may simply try to outrun the torpedo. If the target's crew never do spot its exact location, the operator can still attempt a Dodge, but at -3.

When a torpedo hits, apply its damage to the ship's armor. Many early warships have significantly less DR below the waterline, although the invention of the torpedo causes that to change.

Note also that a steampunk inventor who comes up with a *guided* torpedo will be blessed and cursed by every navy in the world . . .

Its design is a simple streamlined cylinder, 230' long, with windows in the luxurious saloon section, and a retractable glazed compartment to grant a crewman a good view while maneuvering the vessel; a powerful searchlight mounted behind that steering compartment allows safe operation on dark nights or in deep water. Its exact number of crew is unclear, as is its effective cargo capacity; the table shows best guesses. It certainly carries a small rowing/sailing boat which can be sealed against water with a few people on board and released to float to the surface for minor expeditions; this has a telegraph wire connecting it to the *Nautilus* to allow it to request recovery.

This *Nautilus* lacks ranged weaponry (apart from some powerful superscience sidearms for the crew), but Nemo is no pacifist; to start with, it has a sharp, reinforced ramming prow (see p. 10). Given the damage it is described as doing to some killer whales which Nemo dislikes, the *Nautilus'* ramming damage – 6d×24+144 cr at full speed, under the usual rules for vehicle collisions – might actually be defined as *cutting* instead, but without the +1 per die for a normal ram (thus, 6d×24 cut at top speed). The vessel seems able to ram even warships at high speeds without taking any damage, so assume that it is reinforced to give it DR 600 against damage from its own ramming attacks. Also, the hull can be electrified to repel would-be boarders; anyone touching it must roll against HT-3 (each second of contact) or be stunned.

The *Nautilus'* crush depth appears to be almost unlimited. It is described as diving more than 50,000' down (much deeper than the deepest part of the ocean known to modern science, in fact), although Nemo does not choose to linger that deep, so a practical limit of 20,000 yards seems reasonable.

Nemo mentions a price for it that converts to $38 million, including his fabulous collection of artworks, but given its unique capabilities and superscience batteries, anyone who controlled it could probably demand any price from the governments of the world.

B-Class Submarine

The possibilities of submarine warfare became a topic of interest and some nervousness for navies and armchair strategists at the start of the 20th century; for example, the eponymous documents in the Sherlock Holmes story "The Adventure of the Bruce-Partington Plans" describe a submarine that renders naval warfare "impossible within the radius of its operations." In reality, though, early submarines were slow and painfully unreliable, and had to spend most of their time on the surface.

Still, Britain's Royal Navy took an interest in the subject, starting with the experimental Holland class and the unreliable A-class boats. The first *genuine* Steam Age combat submarines were the B class; these effective weapons were built between 1904 and 1906, yet saw some service in WWI despite being outdated by then. The listed Move was achieved on the surface, using the petrol engine; underwater, electric motors gave Move 0.1/4 with Range approximately 50 miles. Filling the 5,800-gallon fuel tank costs $8,700.
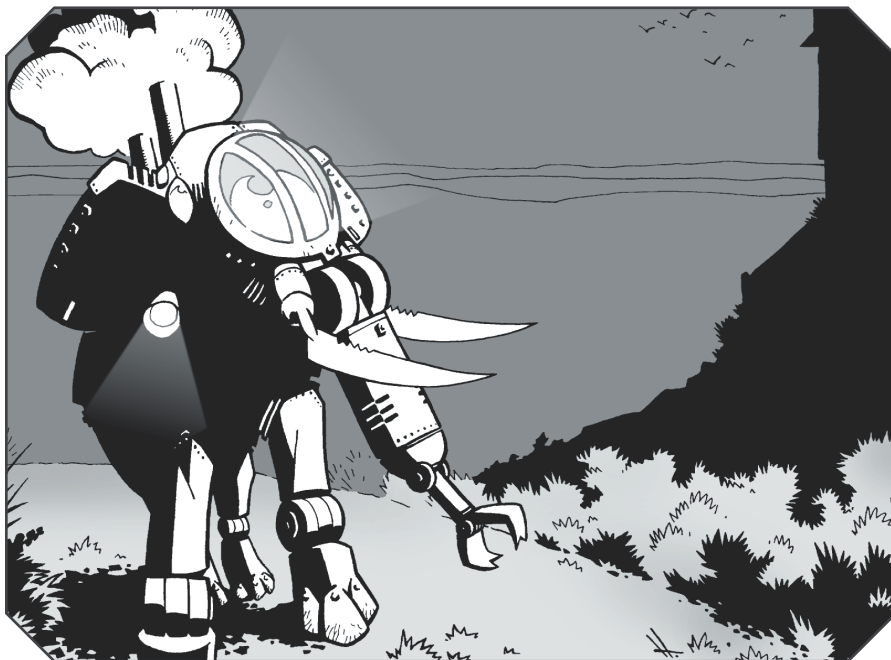
B-class boats were armed with a pair of torpedo tubes loaded with 18" Mark VIII torpedoes (p. 18); they could carry reloads, but only by sacrificing an equal weight of fuel and hence reducing Range to around 570 miles. They lacked long-term facilities for the crew; patrols lasted no more than three to four days.

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