

# Chapter 7: Vehicles

## Section 1: Basics and Car Chases



### Basics of Vehicles:

In the Old World, vehicles were once very common. Though some difficult advances were made in powering them through fusion technology, the vast majority ran on petroleum. After all, fuel was cheap and plentiful, so why worry?

In the Wasteland, vehicles are mostly useless hulks of rusted metal gathering dust. The remaining working vehicles are those that function on fusion power and as such are **very rare**. They're treasured relics, and to have one is to hold a symbol of power.

Basic operation of vehicles outside of combat is governed by the **Pilot** Skill. Vehicles require a particular threshold level of **Pilot** skill just to operate competently, else they face a **disadvantage** on any Pilot rolls made. For vehicles such as cars, trains and boats this is **25%**. For aircraft, this is **80%**.

### Terrain Penalties:

- **Open Terrain: 0% Pilot Skill Penalty**
- **Rough Terrain: -20% Pilot Skill Penalty**
- **Extreme Terrain: -30% Pilot Skill Penalty**



## Vehicle Anatomy:

There are in effect **two Primary Statistics** for vehicles relevant to their driving that are ranked on an escalating basis of 1-5:

- **Speed:** Max Speed (**1:**50MPH **2:**70MPH **3:**90 MPH **4:**110MPH **5:**130 MPH)
- **Bulk:** Size and raw power

Vehicles also have the **Secondary Statistics** of Hit Points, Armor Class, and Damage Threshold much like normal combatants. With the exception that Damage Threshold is not ignored by Energy Weapons, but is ignored by explosive weapons (Throwing or Big Gun).



## Car Chases:

The backbone of road warfare is the chase. In this scenario, the Target always acts before the Pursuer. If there are multiple in either group, initiative within the groups is decided by **1d10+Speed**. It is important for the distance during a chase to be continually monitored in some fashion, the easiest method is to use a hex-grid and minis, however paper will also work. If there are multiple pursuers or targets, there will be multiple distances.

There are five simplified **Ranges** that cars can be at during a pursuit in relation to the target vehicle (who remains stationary on a hex-grid):

- **Close (0 Distance)**
- **Short (-5 Distance)**
- **Long (-10 Distance)**
- **Extreme (-15 Distance, beyond -15 the Car Chase ends)**

The distance between each **Range** is marked by a number of negative increments of **5 Distance** (AKA hexes) with relation to the target vehicle, which is at zero. As an example, a pursuing car at **long range** would be marked as **-10** in terms of its distance away from its target. It is the **objective of the pursuer** to bring the **Distance Score** to **zero**, and the **objective of the target** to bring the score **as far as possible away from zero**, which would result in **Road Warfare**.

At the beginning of each round, the target must roll against **Pilot** in order to escape their pursuer. Upon success, the target vehicle's **Speed** is subtracted from the **Pursuer's** distance. Upon critical success, this number doubles. Upon failure, the target vehicle fails to gain any ground. Upon critical failure, they **add** their own speed to the **Distance Points**.

At the beginning of each round, after the target, the pursuer must also roll against **Pilot** in order to catch-up to their target. Upon success, the pursuer adds their vehicle's **Speed** to the **Distance Score**. Upon critical success, they **double** this number. Upon failure, they do not gain any ground. Upon critical failure, they **subtract** their own speed from the **Distance Score**.

*Example: A Vault Dweller in a sluggish Big-Rig (Speed 1, Pilot 60%) is being pursued by a Motorcycle Raider (Speed 3, Pilot 60%) and a Dune-Buggy Raider (Speed 2, Pilot 60%) at Short Range (Distance: -5)*

*First, the Vault Dweller rolls Pilot and succeeds, subtracting their Speed (1) from the total Distance, turning it from -5 to -6 for both Raiders. As such, they have gained ground in the chase*

*Next, the Motorcycle Raider rolls Pilot and succeeds, adding their Speed (3) to their Distance, bringing their distance to -3 from -6*

*After that, the Dune-Buggy Raider rolls Pilot and succeeds, adding their Speed (2) to their Distance, bringing theirs to -4 from -6 and ending the round.*

Generally speaking, in cases where there is a large disparity in vehicle speed on open terrain, the fastest vehicles will inevitably catch-up with the slower. As such it's left to Overseer (and player) discretion whether to roll for the entire pursuit prior to Road War in these cases.



### **Intense Chases:**

In **certain scenarios** such as racing through narrow canyons or crumbling city streets with many obstacles, chases might have countless context-dependant variables that could change the outcome of a race. To represent this potential, when in particularly intense and chaotic car chases, **an additional Distance point should be added for every 20% a Pilot roll lands beneath its success margin.**

## Section 2: Road Warfare



### **The Driver:**

Road Warfare begins when two or more opposing vehicles exist in Close Range, and is waged by the drivers of the vehicles. In Road Warfare (and Highway Combat in general) there are no action points, only single actions for each individual per turn. The Driver must continue to make Chase rolls at the beginning of each round; however, they do not count towards their action. The Driver has a number of **manoeuvres** they can choose from to make once per turn.

To perform a manoeuvre, the Driver must make a **Pilot** roll. If the move is an attack, they must subtract the opponent vehicle's **AC** from their roll. Upon failure, there was some complication, such as opponent evasion.

<b>Manoeuvre</b>	<b>Description</b>	<b>Damage/Effect</b>
<b>Side-Sweep</b>	Attempting to sweep your vehicle against another in order to damage it. Target and Attacker receive same damage unless the Attacker has Ram Gear	Bulk+ difference in Speed x 5
<b>Full Ramming</b>	Same as above, with greater force.	Bulk + difference in Speed x 10
<b>Head-On Collision</b>	Deliberately colliding your vehicle head-on into another that is oncoming. Both vehicles receive the same damage and Crash.	Target Bulk + Attack Bulk + Target Speed + Attack Speed x 20
<b>Bootleg Stop</b>	Vehicle comes to an immediate stop facing the other direction. Requires Pilot Roll with -30% Penalty, failure results in losing control	N/A
<b>Evade</b>	Vehicle makes evasive manoeuvres	+10 AC till next round
<b>Hit and Run</b>	Ramming the vehicle into an individual	Target rolls AGL to avoid  Target Bulk + Speed x 20

## Losing Control:

If two vehicles collide in any fashion, the vehicle with smaller Bulk must roll **1d4** for how their car loses control. If they are equal, both roll. Each difference of Bulk adds to the roll. The penalty only effects the next action.

1. Minor Skid: **-5% on any rolls made by passenger or driver**
2. Minor Fishtail: **-10% on any rolls made by passenger or driver**
3. Major Skid: **-15% on any rolls made by passenger or driver**
4. Major Fishtail: **-20% on any rolls made by passenger or driver**
5. Spin-Out: **Roll Pilot. Target car stops, Pursuer moves to Extreme distance. Fail means Roll.**
6. Roll: **Full Crash**

## Crashing:

Crashing is the most destructive way a vehicle can stop, either from a head-on collision, a roll or some other calamity. A crash result is **1d10 for each 10 MPH the car was travelling for both the passengers and the vehicle**. Similarly, for each 40 MPH the car was travelling the players receive 1 Crippled Limb. To determine which, they must Roll 1d8:

1. Head
2. Eyes
3. Chest
4. Right Leg
5. Left Leg
6. Right Arm
7. Left Arm
8. Groin

If a vehicle is reduced to **¼ of its Max HP** it reaches its **Shutdown Threshold**, where the vehicle ceases functionality and stops dead. If the vehicle is reduced to **0 HP**, it **explodes**. Any passengers still inside must roll **Instant Death Saves**

## Section 3: Passenger Combat



In the Wasteland, the term "Riding Shotgun" is literal. Passengers can be a vital part of vehicular combat. Much like the Driver, during vehicular combat there's no action points, only single actions taken per individual per turn. There are three types of passenger in the car: **Gunners, Grease Monkey and Hijackers**

By default, all combatants have no AC granted by their armor during highway combat, only what is granted by the vehicles. Exposed refers to those clambering around on vehicles or those on vehicles with no protection such as bikes. Partial Cover refers to being sat inside the vehicles with some covering, but no active attempts to hide. Greater Cover refers to highly protected positions, or trying to lie on the car-seats.

### Cover:

- **Exposed:** 0 AC
- **Partial:** 20 AC
- **Greater:** 60 AC

### Gunners:

By default, due to the frantic nature of vehicular combat, all combat rolls receive a **-10% penalty** unless using a mounted weapon. The effective range of weapons is largely up to Overseer discretion - if the narrative context allows it you might have a melee duel across motorcycles. As a rule of thumb, the penalty doubles with each Range tier.

Ranged Gunners or Melee Hijackers can make **Targeted Shots** against vehicles:

Area	Effect	Aim Penalty
Wheels	Damage x2	-40%
Vitals	Damage x1.5	-30%

## **Grease Monkey:**

The mechanic. Using a Tool or higher quality equipment, the Grease Monkey on Bulk 3 or higher vehicles can spend **1d4** turns making emergency repairs. If they pass a **Repair** check at the end of the rounds, the vehicle is restored **3d6 HP**. However, due to the fact that the Grease Monkey is likely clambering over the vehicle, Grease Monkeys have **0 AC** whilst they are doing their work.

## **The Hijacker:**

The Hijacker is the daring passenger who jumps from vehicle to vehicle in order to bring the fight to the enemy. Hijackers can only leap to vehicles larger than Bulk 1. Hijackers must roll against **Agility** to make the leap. However, some vehicles are harder to leap onto than others.

**Bulk 2: -3 AGL**

**Bulk 3: -2 AGL**

**Bulk 4: -1 AGL**

**Bulk 5: N/A Penalty**

Hijackers must take a full turn to make any movements clambering on the vehicle, and experience no AC penalty when attacking opponents on the same vehicle. For Hijackers, the Aim Penalties on Targeted Shots against Vehicles are halved.

Hijackers can throw drivers out of their vehicle by making a successful **Grapple** roll.

If a Hijacker fails a leap, they must roll the same as if they were in a crash.

## **The Driver:**

The Driver can also attack whilst driving, taking their action, however they can only utilize one-handed weapons and must take an additional Pilot roll. If this roll fails, they must roll on losing control.

## Section 4: Planes, Trains and Boats



In the vast, wild wasteland there's more ways of getting around outside of cars or hoofing it. Whether it be sailboats fishing along murky irradiated seas, fledgling railways or sailing the air in wondrous flying machines.

### Chases:

Chases across all vehicle types operate in fundamentally the same fashion as that of cars, however context and the nature of the vehicles will affect the mechanics of the chase.

### Trains:

With the nature of trains, train-combat is rather simple. If the combat is entirely contained on the train, it should play out as normal, non-vehicular combat, however if the train is being pursued by other vehicles, it plays out like car-combat with the train as a very large fixed-speed vehicle. Speed and approach up to Overseer discretion.

### Aircraft:

Due to the esoteric nature of aircraft in the Fallout setting, it is more likely you'll be receiving fire from the ground than engaging in dogfights. When exactly during your flight you're capable of being shot down, or how, is up to the contextual discretion of the Overseer.

When an aircraft loses **half** of its health, a Pilot roll must be made. If this fails, the pilot begins to lose control of the aircraft and will crash. A further pilot roll with a **-50%** penalty will determine if this crash is controlled (Same rules as car crash) or completely out of control (All passengers make Instant Death Saves).

The same roll must be repeated when a further quarter of the aircraft's health is lost.



## Boats:

Boats operate on the same fundamental chase rules as cars, however the scale of time in the chase is a lot slower.

When ships are in immediate range of each other, the attacking ship may need to make a Pilot roll to bring the ship within **boarding** range, failure results in the target ship getting the slip. Some ships will require **boarding equipment** to successfully board, namely a **climbing kit**. The party must then each make **Throwing** rolls, a majority success means the ship has been grappled and boarding begins. Combat on a boarded boat plays out much like normal non-vehicular combat.

When a boat reaches **0 HP**, it begins to **sink**. The number of rounds before sinkage is equivalent to that of its **Bulk** level.



## Section 5: Vehicle Maintenance, Modification and List



In the Old World, vehicles were mass-produced to specification by factories and personal maintenance was an economic choice rather than an absolute necessity. In the Wasteland, if you're driving a machine you best know how to keep its guts chugging.

Functioning vehicles in the Wasteland are those scarce few fusion-powered created prior to the Great War, and as such rely on Microfusion Cells for fuel.

### Making Repairs:

When attempting to repair a vehicle, a character must have a **Repair** tool and then make a **Repair** roll to determine if repair is viable. If so, and then roll **3d10** for how many HP is restored on the vehicle. For each 10 HP restored, x1 **Good Quality Metal Parts** is required. If the Repair roll fails, then the vehicle must be repaired by a garage or with the usage of a **Super Tool Kit**. The check is bypassed if the character is already in possession of one. A repair takes 8 hours

If the vehicle reached **Shutdown Threshold** during combat, then a **vital component** has failed and must be replaced entirely with the assistance of a **Super Tool Kit**. The vehicle will remain inoperable until then.

### Customization and Equipment:

To modify your vehicle, you either need a **Super Tool Kit** or take the vehicle to an appropriate garage. The exact nature and the capacity for the vehicle to take these modifications is up to Overseer discretion. The capacity for modifications is equivalent to the **Bulk** of the vehicle. However, the exact nature of modification and capacity are also up to Overseer discretion.

Resource requirements are multiplied by the Bulk of the vehicle.

Mod	Resource Requirements	Effect
Fuel Cell Regulator	N/A (Old World technology)	Reduces the charge rate from one full MFC cell to halve in all cases.
Ram Prow	x 8 Metal Parts	Halves the damage of ramming and head-on collisions for the attacker
Armored Tires	X 5 Metal Parts X 4 Fibres	Tires cannot be punctured or targeted
Extra Armor, Light	X 10 Metal Parts	+3 Damage Threshold
Extra Armor, Medium	x 15 Metal Parts Bulk 3 or Higher Vehicle	+ 8 Damage Threshold -1 Speed
Extra Armor, Heavy	X 20 Metal Parts Bulk 4 or Higher Vehicle	+15 Damage Threshold -1 Speed (Min. 1)
Mounted Weapon	X 8 Metal Parts X 4 Fibres Suitable Big Gun	Removes any penalty whilst firing said weapon during combat
Fusion Efficiency Charger	N/A (Old World Technology)	Increases Speed by 1

## Land Vehicles:

Name	Bulk	Speed	Health	AC	DT	Shutdown Threshold	Total Charge Per MFC
Motorcycle	1	2	60	35	0	15	100%
Chopper	1	2	75	25	2	18	100%
Dune-Buggy	2	2	150	20	2	37	75%
Sedan	2	2	120	15	4	30	50%
Highwayman	3	3	220	15	8	55	50%
Truck	3	2	220	10	10	55	40%
Bus	4	1	280	5	15	70	25%
Hauler	4	1	320	0	15	80	25%
Big-Rig	5	1	350	0	20	87	25%

## Sea Vessels:

<i>Name</i>	<i>Bulk</i>	<i>Speed</i>	<i>Health</i>	<i>AC</i>	<i>DT</i>	<i>Shutdown Threshold</i>	<i>Total Charge Per MFC</i>
<i>Catboat</i>	1	1	30	10	0	N/A	N/A
<i>Catamaran</i>	2	2	80	20	0	N/A	N/A
<i>Cutter</i>	2	3	120	15	0	N/A	N/A
<i>Schooner</i>	2	3	150	15	0	N/A	N/A
<i>Trawler</i>	5	3	250	0	20	N/A	25%
<i>Patrol Boat</i>	3	3	200	5	15	N/A	25%

## Aircraft:

<i>Name</i>	<i>Bulk</i>	<i>Speed</i>	<i>Health</i>	<i>AC</i>	<i>DT</i>	<i>Crash Threshold</i>	<i>Total Charge Per MFC</i>
<i>Old World Bomber</i>	5	4	500	35	25	250	10%
<i>Vertibird</i>	4	5	400	45	25	200	10%

