

VEHICLES

Wyrld has an assortment of vehicles that can be broken down into several types of vehicle based on a combination of how they are moved, what they move through, and their nature. All Vehicles have an assortment of capabilities that allow them to be used.

VEHICLE STAT BLOCKS

All vehicles have certain qualities in common that describe their ability to resist and take damage, how they are controlled and move, and weapons they may have. These are represented by Vehicle Stat Blocks. All Vehicles use the same stat block, although all vehicles are somewhat different.

VEHICLE STAT BLOCK EXAMPLE

Vehicle					
Type		Piloting		Propulsion	
Size		Officers		Speed	
Weight		Crew		Fuel	
Armor Class		Passengers		Handling	
Hit Points		Cargo		Acceleration	
Threshold		Space		Turn Radius	
Heavy Mounts		Medium Mounts		Light Mounts	

TYPE: This is the Vehicle's type: Single Drawn, Team Drawn, Groundcraft, Sandcraft, Watercraft, Divecraft, Skycraft, Demesne, and Magical.

SINGLE DRAWN, vehicles drawn by a single person or animal over ground.

TEAM DRAWN, Vehicles which are drawn by teams of people or animals over ground.

GROUNDRAFT, Vehicles which are powered by some form of Engine over ground.

SANDCRAFT, vehicles which are used on the Sand Sea.

WATERCRAFT, vehicles which are used on the surface of the seas and rivers.

DIVECRAFT, Vehicles which are powered by some engine and operate mostly underwater.

SKYCRAFT, Vehicles which are magically powered and operate mostly in the air.

DEMESNE, which are small islands that float in the seas or in the skies.

MAGICAL, which are vehicles empowered by spellcraft.

SIZE: Vehicles have a size rating.

WEIGHT: Vehicles have a weight rating.

ARMOR CLASS: Vehicles have an AC for the body of the Vehicle. This is sometimes called a Hull.

HIT POINTS: Vehicles have hit points.

DAMAGE THRESHOLD; All vehicles have a threshold of at least 10% of their total HP. Damage less than that threshold has no effect.

PILOT: Vehicles require a Pilot.

OFFICERS: Some vehicles have a number of officers, expressed in number of adult bodies.

CREW: Some Vehicles have a crew capacity, expressed in number of adult bodies.

PASSENGERS: Vehicles have a passenger capacity, expressed in number of adult bodies.

CARGO: Vehicles have a cargo capacity, expressed in pounds.

SPACE: Vehicles have a set amount of space, expressed in either cubic feet or number of Containers.

PROPULSION: the means by which the vehicle is able to move.

FUEL: Some vehicles have a fuel requirement.

SPEED: Vehicles have different types of movement (wheels, propeller, wings, sails, oars, skis, team, engine) with different speeds. This is the same speed rating as given to living creatures. Speed impacts the DC of Maneuvers.

HANDLING: Vehicles have a handling score. A Handling score is a DC for piloting the vehicle. Certain circumstances and Maneuvers add or subtract to the Handling score, and the character has to successfully roll their piloting score against the handling DC to achieve the action. Handling represents how easy the vehicle is to pilot, and the default DC is 10.

ACCELERATION: one tenth the maximum speed of the Vehicle. Each round that a vehicle accelerates, it adds this number to previous speed. Vehicles reach their maximum speed in 10 rounds.

TURN RADIUS: space to turn around. Trying to turn too tightly will capsize the vehicle.

WEAPON MOUNTS: Vehicles have between 0 and 20 weapon mounts. Vehicle weapons make ranged attacks as normal. There are three kinds of Weapon Mounts: Light, Medium, and Heavy. Vehicle weapons have their own weapon table.

RANGE: The range of the Vehicle in miles per day. Range is reduced by certain maneuvers. Range is determined using the travel Speed chart, based on the Speed of the vehicle.

ACTIONS: All vehicles get actions, just like people. A vehicle can make one Maneuver per turn and one Attack per weapon it has mounted per turn. Some vehicles may get a reaction and some may get a bonus action. The individual vehicle descriptions describe those.

MANEUVERS: The movement actions that a vehicle can take.

VEHICULAR BASICS

BOARD

Once during your move, you can get into a vehicle that is within 5 feet of you. Doing so costs an amount of movement equal to half your speed.

Boarding is a movement action.

PILOT

A pilot makes a Proficiency check when attempting maneuvers while directing a vehicle. This piloting check is always made against the DC of the vehicle's Handling score. Piloting is a Complex Skill. This shows the kind of Piloting that is needed for that type of Vehicle.

Pilots can use an action to propel the vehicle up to its speed or bring the vehicle to a dead stop. While the vehicle is moving, the driver can steer it along any course.

If the driver is incapacitated or does nothing to alter the vehicle's course and speed, the vehicle moves in the same direction and at the same speed as it did during the driver's last turn until it hits an obstacle big enough to stop it.

DISEMBARK

Once during your move, you can get out of a vehicle. Doing so costs an amount of movement equal to half your speed.

Disembarking is a movement action.

VEHICLE WEAPONS

A vehicle may have one or more weapons. Such weapons are slow to load and fire.

MAGICAL PROPULSION

Any Magically powered vehicle will become inoperable within an antimagic field. When the engine comes into contact with such an effect, the vehicle shuts down and can't be restarted until the engine is free of the field.

CRASHING

When a vehicle crashes into something that could reasonably damage it, such as an iron wall or another vehicle of its size or bigger, the vehicle comes to a sudden stop and takes 1d6 bludgeoning damage for every 10 feet it moved since its last turn. Whatever the vehicle struck takes the same amount of damage. If this damage is less than the vehicle's damage threshold, the vehicle takes no damage from the crash.

Regardless of whether or not the vehicle takes damage, each creature on or inside the vehicle when it crashes must make a DC 15 Strength saving throw, as per Jostling.

CRUSHING CREATURES

A vehicle can crash into a creature by entering its space. The creature can use its reaction to attempt to get out of the vehicle's way, doing so and taking no damage with a successful DC 13 Dexterity saving throw.

If the saving throw fails, the vehicle slams into the creature and deals 1d6 bludgeoning damage to the creature for every 10 Speed the vehicle had that turn. Thus, a speed of 30 causes 3d6 damage, a speed of 1100 does 110d6 in damage.

A vehicle that is at least two sizes bigger than the creature it crashed into can continue moving through that creature's space if the vehicle has any movement left.

FALLING

When a vehicle goes over a cliff or otherwise falls, the vehicle and all creatures on or inside it take damage from the fall as normal (1d6 bludgeoning damage per 10 feet fallen, maximum 20d6) and land prone.

MISHAPS

Roll on the Mishaps table when one of the following occurs to a vehicle while it's in motion:

The driver fails a Piloting check by more than 5.

The Vehicle Collides or Rams another vehicle.

The Vehicle crashes into something that is not soft and squishy.

MISHAPS

d20	Mishap	Repair DC
1	Large Breach. The Vehicle's Damage Threshold is reduced by 20 until the mishap ends.	15
2-4	Locked Steering. The vehicle can move in a straight line only. All Handling has a +10.	15
5-7	Propulsion Issue. The vehicle's speed decreases by 30 feet per turn until this mishap ends.	15
8-10	Weapon Malfunction. One of the vehicle's weapons (DM's choice) can't be used until this mishap ends. If the vehicle has no functioning weapons, no mishap occurs.	20
11-13		15
14-16	Small Breach. The vehicle's damage threshold is reduced by 10 until this mishap ends.	15
17-19	Damaged Propulsion. The vehicle grinds and shakes uncontrollably. Until the mishap ends, the Pilot has disadvantage on all Piloting checks, and all ability checks and attack rolls made by creatures on or inside the vehicle have disadvantage.	20
20	Flip. The vehicle flips over, falls prone, and comes to a dead stop in an unoccupied space. Any unsecured creature holding on to the outside of the vehicle must succeed on a DC 20 Strength saving throw or be thrown off, landing prone in a random unoccupied space within 20 feet of the overturned vehicle. Creatures inside the vehicle fall prone and must succeed on a DC 15 Strength saving throw or take Crash bludgeoning damage.	None

If a mishap has a repair DC, the mishap can be ended by making repairs to the vehicle.

CREWS

Each vessel requires people to run it: the officers in charge and the sailors who follow their orders.

OFFICERS

Large, complex vehicles need officers to oversee its operations—officers who fill six different roles. Some roles aboard a vehicle reflect the need for trained experts to direct a crew's efforts. Other roles focus on keeping the crew's health and morale in order. The roles are meant to provide a sense of the types of ability checks useful to managing a vehicle. Of these, though, captain is the only role that must be filled for the vehicle to function. A vehicle needs a single person to issue orders and respond to threats, otherwise a vehicle risks chaos and confusion during a crisis.

Each type of officer is described below, along with the abilities and proficiencies that help a character excel in that role:

CAPTAIN

The captain issues orders. The best captains have high Intelligence and Charisma scores, as well as proficiency with the kind of vehicles and the Intimidation and Persuasion skills.

FIRST MATE

This specialist keeps the crew's morale high by providing supervision, encouragement, and discipline. A first mate benefits from a high Charisma score, as well as proficiency with the Intimidation and Persuasion skills.

BOSUN

The bosun (or boatswain) provides technical advice to the captain and crew and leads repair and maintenance efforts. A good bosun has a high Strength score, as well as proficiency with carpenter's tools and the Athletics skill.

NAVIGATOR

The Navigator plots the vehicle's course, relying on knowledge of nautical charts and a study of weather and sea conditions. A reliable Navigator tends to have a high Wisdom score, as well as proficiency with navigator's tools and the Nature skill.

SURGEON

The vehicle's surgeon tends to injuries, keeps illnesses from spreading throughout the vehicle, and oversees sanitation. A capable surgeon benefits from a high Intelligence score, as well as proficiency with herbalism kits and the Medicine skill.

COOK

A vehicle's cook works with the limited ingredients aboard a vehicle to make meals. A skilled cook keeps the crew's morale in top shape, while a poor one drags down the entire crew's performance. A talented cook has a high Constitution score, as well as proficiency with brewer's supplies and cook's utensils.

CREW MEMBERS

A vehicle requires a number of able-bodied sailors to crew it, as specified in its stat block. A crew's skill, experience, morale, loyalty, and health are defined by the Captain's Charisma score plus the Ship's Renown score, divided by two. This is the Quality Score.

This score can affect a number of general vehicle activities, like the crew's ability to notice threats or contend with hazards. It decreases as a crew takes casualties, suffers hardship, or endures poor health. It increases if the crew enjoys high morale, has good health care, and receives fair leadership.

Quality scores always drop by 1 point for each week away from Home.

Quality scores are affected by different events, as determined by the DM.

MUTINY

A poorly led or mistreated crew might turn against its officers. If the crew mutinies. They become hostile to the officers and might attempt to kill them, imprison them, or throw them overboard. The crew can be cowed into obedience through violence, combat, or offers of treasure or other rewards.

If things are bad for longer than a week, then once per day, a quality check can be rolled, using a DC determined by the DM.

SHORE LEAVE

Life aboard a vehicle is a constant wear on the crew. Spending time in port allows the crew to relax and regain its composure.

A crew's quality score increases by 1 for each day the crew spends in port or ashore, up to a maximum of 7.

BREAKDOWNS

Vehicles do not heal HP. Damage to a vehicle remains a loss. Combat, Environment, and Sabotage can cause a vehicle to stop functioning properly, until it eventually breaks down. This means that Vehicles suffer Fatigue.

VEHICLE FATIGUE

Vehicles gain a Fatigue point whenever the following conditions happen:

They take damage over the Threshold.

A Weapon Mount is destroyed.

The Vehicles suffers a Mishap.

When a vehicle reaches 9 Fatigue points, the vehicle breaks down. The only way to remove the effects of Fatigue on a vehicle is to repair the vehicle.

VEHICLE REPAIRS

Nonmagical repairs to a damaged vehicle can be made while the vessel is berthed. Repairing 1 hit point of damage to a berthed vehicle takes 1 hour and costs 1 gp for materials and labor. Damage to vehicle weapons can be repaired just as quickly, but at half the cost.

The mending spell is another way to make repairs. Casting mending on a damaged vehicle or vehicle weapon restores a number of hit points to the target equal to 1d8 plus the spellcaster's spellcasting ability modifier. The target can regain hit points from that spell no more than once per hour.

REPAIRS

When a vehicle is damaged or suffers a mishap, a creature can attempt to make repairs to the vehicle. The creature making the repairs must meet the following criteria:

The creature can't operate the vehicle's helm or one of its weapon stations while making repairs.

The creature must be within reach of the damaged area in need of repair.

The creature must have the right tools for the job (smith's tools or tinker's tools, for example).

Before beginning repairs, a creature must decide whether the repairs are aimed at ending a mishap, removing a level of exhaustion, or restoring the damaged vehicle's hit points. Each option is discussed below.

END A MISHAP

A creature can use its action to make an ability check based on the DC of the mishap (see the Mishaps table), adding current maneuver modifiers, with disadvantage if the vehicle is moving. The creature adds its proficiency bonus to the check if it's proficient with the tools used to make the repairs. A successful check ends the mishap.

RESTORE HIT POINTS

If the vehicle has taken damage but has at least 1 hit point, a creature can spend 1 hour or more trying to patch the hull and replace damaged parts. The vehicle must be stationary, and the creature must have the spare parts to make the necessary repairs. After 1 hour of repair work, the creature makes a DC 15 skill check, adding its proficiency bonus to the check if it's proficient with the tools used to make repairs. If the check succeeds, the vehicle regains 2d4 + 2 hit points. If the check fails, the vehicle regains no hit points, but the repair can be attempted again using the same replacement parts.

TRAVEL PACE

While traveling, a group can move at a Stealthy, Slow, Normal, Quick, or Fast pace, as shown on the [TRAVEL PACE TABLE](#). The table shows whether the pace has any effect. A faster pace makes characters less perceptive, while a slower pace makes it possible to sneak around and to search an area more carefully. Difficult terrain reduces speed by half (2 to 1), with the same effects. Unstable terrain reduces speed to one quarter (4 to 1), with the same effects.

TRAVEL PACE TABLE

Pace	Speed	Effect	Notes
Stealthy	Quarter (0.25)	+5 to Perception Checks	Able to use stealth
Slow	Half (0.5)	+3 to Perception Checks	Typical Travel Pace, avoids fatigue of teams
Normal	Normal (1)		Standard trave pace.
Quick	Rushed (1.5)	-3 to Perception checks	Teams suffer 1 point of fatigue per hour
Fast	Double (2)	-5 to Perception checks	Teams suffer 2 points of fatigue per hour, Individuals suffer 1 per hour

The Speed of travel is based on the Speed of the way traveled – a Wagon Speed is going to vary by wagon, an airship or train will vary by that. The Speed rating of a vehicle, Mount, or individual determines the distance traveled in a Round, Minute, Hour, or Day.

Terrain impacts speed, type of Speed impacts it, and there are reasons not to tire people and mounts out or push them too hard. Travel is a common challenge, and is fairly uncommon among most of the population, which tends to remain within a given area for most of their lives.

[THE SPEED AND DISTANCE TABLE](#) shows how far something can travel in a span of time (minutes, hours, days) based on speed score (using standard speed unit of 1 = 10 feet in six seconds). This takes into account time spent resting teams and crews, minor disturbances, and the like. When using a vehicle, Handling can impact the distance and speed, especially during maneuvers, which are also more challenging at higher speeds.

A day of travel is 8 hours of time.

SPEED & DISTANCE TABLE

Speed	Distance Traveled			Notes	Speed	Distance Traveled			Notes
	Minute (ft.)	Hour (mi)	Day (mi)			Minute (ft.)	Hour (mi)	Day (mi)	
1	10	0.2	1.6		325	3250	37	296	
5	50	0.5	4		350	3500	40	320	
10	100	1	8		375	3750	43	344	
15	150	1.5	12		400	4000	45	360	
20	200	2	16	Foot	425	4250	47	376	
25	250	3	24	Cart	450	4500	50	400	
30	300	3.5	28	Horse	475	4750	53	424	
35	350	4	32		500	5000	55	440	
40	400	4.5	36	Wagon	525	5250	57	456	
45	450	5	40		550	5500	63	500	
50	500	5.5	44		575	5750	65	520	Train
55	550	6	48	Skyship	600	6000	68	544	
60	600	6.5	52		625	6250	71	568	

65	650	7	56		650	6500	74	592	
70	700	7.5	60		675	6750	77	616	
75	750	8	64		700	7000	79	632	
80	800	8.5	68		725	7250	82	656	
85	850	9	72		750	7500	85	680	
90	900	10	80		775	7750	88	704	
95	950	11	88		800	8000	91	728	
100	1000	12	96	Barge	825	8250	94	752	
125	1250	14	112		850	8500	97	776	
150	1500	18	144		875	8750	99	792	Dragon
175	1750	19	152		900	9000	102	816	
200	2000	22	176		925	9250	105	840	
225	2250	25	200	Ship	950	9500	108	864	
250	2500	28	224		975	9750	111	888	
275	2750	31	248		1000	10000	114	912	
300	3000	35	280		1100	11000	125	1000	

FORCED MARCH. The tables above presume that characters travel for 8 hours in day. They can push on beyond that limit, at the risk of exhaustion.

For each additional hour of travel beyond 8 hours, the characters cover the distance shown in the Hour column for their pace, and each character must make a CON save throw at the end of the hour. The DC is 10 + 1 for each hour past 8 hours. On a failed saving throw, a character suffers one level of fatigue.

MOUNTS. For short spans of time (up to an hour), many animals move much faster than people.

A mounted character can ride at a gallop for 1 hour, covering twice the usual distance for a fast pace. If fresh mounts are available every 5 to 10 miles, characters can cover larger distances at this pace, but this is very rare except in densely populated areas.

Mounts which move at this double speed must make a Con check every hour or suffer a point of fatigue.

VEHICLES. Characters in wagons, carriages, or other land vehicles choose a pace as normal.

Characters in a waterborne vessel are limited to the speed of the vessel, and they don't suffer penalties for a fast pace or gain benefits from a slow pace. Vessels can slow down or speed up in some circumstances, depending on their method of movement, but altering speed has the effects outlined above. Note that unless visibility is impacted, waterborne vehicles move in stealth closer than 2 miles to the target.

Characters in a flying vessel are limited to the speed of the vessel, and they don't suffer penalties for a fast pace or gain benefits from a slow pace. Vessels can slow down or speed up in some circumstances, depending on their method of movement, but altering speed has the effects outlined above.

Depending on the vessel and the size of the crew, vehicles might be able to travel for up to 24 hours per day. This requires a vessel with shifts, or the crew begins to suffer from fatigue.

Certain special mounts, such as a pegasus or griffon, or special vehicles, such as a carpet of flying, allow you to travel more swiftly.

TRUE SPEEDS

This table gives the precise speed versus miles per hour using standard Speed units.

It is provided for reference.

Speed Equivalents													
Speed	.88	2.2	4.4	8.8	17.6	26.4	35.2	44	52.8	61.6	70.4	79.2	88
Mph	.1	.25	.5	1	2	3	4	5	6	7	8	9	10
Speed	132	176	220	264	352	440	528	616	660	704	792	880	968
Mph	15	20	25	30	40	50	60	70	75	80	90	100	110

DIFFICULT TERRAIN

The travel speeds above assume relatively simple terrain: roads, open plains, and dry packed soil. But adventurers often face dense forests, deep swamps, rubble-filled ruins, steep mountains, and ice-covered ground—all considered difficult terrain.

You move at half speed in difficult terrain—moving 1 foot in difficult terrain costs 2 feet of speed—so you can cover only half the normal distance in a minute, an hour, or a day.

UNSTABLE TERRAIN

The travel speeds above assume relatively simple terrain that remains pretty much where it is. But adventurers often face situations and experiences where the terrain is moving, roiling, or disturbed and broken far more than with difficult terrain—all considered unstable terrain.

You move at quarter speed in unstable terrain—moving 1 foot in difficult terrain costs 4 feet of speed—so you can cover only a quarter the normal distance in a minute, an hour, or a day.

VEHICULAR COMBAT

The basic rules for vehicle combat are similar to those for regular combat, but with some additional rules to account for the larger scale and movement of the vehicles.

Vehicles have Piloting Skills: Sky, Sea, or Land. Vehicles have their own movement speed and can move in different directions. A vehicle moves as you direct it.

Vehicles themselves are objects for attacks on them. Vehicles have their own hit points and can be damaged or destroyed by attacks. When a vehicle reaches zero hit points, it may crash or sink, depending on the type of vehicle.

Vehicles have Actions and Maneuvers for engaging with both each other and with the environment around them. The environment can play a significant role in vehicle combat, with hazards such as rough seas or storms affecting movement and actions.

INITIATIVE

The Dungeon Master's Guide presents a variant rule called Side Initiative, which is ideal for vehicle-to-vehicle engagements, since it saves you the trouble of tracking initiative for individual creatures aboard each vehicle.

On a vehicle's turn, the captain decides which of the vehicle's actions to use.

STARTING DISTANCE

At the start of an engagement, the DM decides how far a vehicle is from its enemies. Three possibilities are provided in the Starting Encounter Distance table. The shorter the distance, the less time crews have to load weapons and make other preparations.

STARTING ENCOUNTER DISTANCE

Distance	Notes
250 feet	Long range for ballistae, mangonels, shortbows, longbows, light crossbows, and heavy crossbows
500 feet	Long range for longbows and mangonels; beyond the range of ballistae and crossbows
1,000 feet	Beyond the range of most ranged weapons

ACTION TYPES

Attacking is the most common form of Action when in combat, but there are many other kinds of actions on can take, and they do not need to only be taken during combat.

RANGED ATTACK

Vehicles may have mounted weapons, such as cannons or ballistae, that characters can use to attack other vehicles or targets on land or in the air.

It takes one action to load a Vehicle weapon, and one action to fire it. Vehicle Weapons often have a minimum range. Within that range, they cannot fire.

Normal Ranged Attack rules apply.

BOARDING ATTACK

Characters may attempt to board or grapple with another vehicle, either to take control of it or to sabotage it. To do so requires that the vehicles be within 5 feet of each other. They can do this using STR (Athletics) versus the DC of ongoing maneuvers.

When a vehicle moves to within 5 feet of another vehicle, the pilot of the moving vehicle can maneuver it alongside the other vehicle, enabling creatures to move safely from one vehicle's deck to the other vehicle's deck until one of the vehicles pulls away from the other.

A vehicle that has enough movement can pull alongside another vessel, deploy a boarding party, and then move away, provided the members of the boarding party took the Ready action to position themselves so they can move onto the other vessel when it's close enough.

MOVE BETWEEN VEHICLES

This is a combination of a Jump Action and Boarding Action. Boarding reduces Speed by half, and Jumping requires one foot of movement for each forward foot and each vertical foot. Normal rules for both long and high jumps still apply in regards distance and STR modifiers.

Moving between Vehicles is a Movement Action.

OPPORTUNITY ATTACKS

Vehicles provoke opportunity attacks as normal. When a Vehicle provokes an opportunity attack, the attacker can target the vehicle or any creature riding on or inside it that doesn't have total cover and is within reach.

OFFICER ACTIONS

During an encounter, the captain, first mate, and bosun each have access to two special action options: Take Aim and Full Speed Ahead, both detailed below.

TAKE AIM

As an action, the captain, first mate, or bosun directs the crew's firing, aiding in aiming one of the vehicle's weapons. Select one of the vehicle's weapons that is within 10 feet of the officer. It gains advantage on the next attack roll it makes before the end of the vehicle's next turn.

FULL SPEED AHEAD

As an action while on deck, the captain, first mate, or bosun can exhort the crew to work harder and drive the vehicle forward faster. This results in acceleration to the maximum speed.

CREW IN COMBAT

Managing a vehicle's entire crew in combat can prove cumbersome, especially as larger vehicles often host dozens of sailors. Typically, the crew is too busy managing the vehicle to do anything else during combat. Don't worry about tracking their specific positions unless you want to add that complexity. You can assume that the crew is evenly divided among the upper two decks of a vehicle.

WEAPON MOUNTS

A creature can use an action of the station it's occupying. Once a creature uses a station's action, that action can't be used again until the start of that creature's next turn. Only one creature can occupy each station.

A creature not occupying an action station is either in a passenger seat or clinging to the outside of the vehicle. It can take actions as normal.

MANEUVERS

Any Maneuver requires a Piloting Check.

On a given Turn, a Pilot without Proficiency can take make one Maneuver.

A pilot with Proficiency can make two Maneuvers simultaneously.

Vehicles have their own Handling score, which is the base DC for any piloting checks. The kinds of Maneuvers and the speed of the vehicle in that turn then modify that DC for the purposes of the check.

MANEUVER MODS

Each kind of Maneuver has a modifier, as shown below.

Maneuver	Handling	Maneuver	Handling	Maneuver	Handling	Maneuver	Handling
Forward	+1	Accelerate	+1	Close	+3	Strafe	+5
Reverse	+1	Brake	+1	Collide	+3	Land	+2
Hard Brake	+2	Climb	+2	Ram	+4	Surface	+1
Spin	+3	Dive	+2	Crush	+4	Stop	+1
23 Degree Turn	+0	45 Degree Turn	+1	67 Degree Turn	+2	90 Degree Turn	+3

SPEED MODS

Speed impacts handling of a vehicle as well. The following table lists the handling modifier for speeds equal to or between the lower number.

Speed	Handling	Speed	Handling	Speed	Handling	Speed	Handling	Speed	Handling	Speed	Handling
88	-2	264	+1	440	+5	616	+9	792	+13	968	+17
132	-1	308	+2	484	+6	660	+10	836	+14	1012	+18
176	0	352	+3	528	+7	704	+11	880	+15	1056	+19
220	0	396	+4	572	+8	748	+12	924	+16	1100	+20

Speeds over 125 miles an hour for people unused to traveling faster than 60 miles a day are unlikely to happen, but you can adapt from here.

SPEED EQUIVALENTS

Mph	.1	.25	.5	1	2	3	4	5	6	7	8	9	10
Speed	.88	2.2	4.4	8.8	17.6	26.4	35.2	44	52.8	61.6	70.4	79.2	88
Mph	15	20	25	30	40	50	60	70	75	80	90	100	110
Speed	132	176	220	264	352	440	528	616	660	704	792	880	968

ACCELERATE

This causes the vehicle to increase its Speed by its Acceleration each turn until its maximum Speed rating is achieved.

BRAKE

This causes the vehicle to reduce its Speed by its Acceleration each turn until a Speed of 0 is reached. Note that in the turn the vehicle begins to brake, it will still travel the distance of any remaining speed.

CLIMB

This makes the vehicle move upwards a number of feet equal to its Acceleration in one turn. A vehicle in motion will continue in the last direction (upward) until an action is taken to change that. A normal climb is less than 15 degrees. If they wish to climb faster, they must make a turn.

CLOSE

This maneuver is to get close enough to another vehicle to collide with it or to get close enough to Crush a mount or person.

COLLIDE

Collide causes the speed of the vehicle at that turn to be applied as crushing damage to the target on a successful maneuver roll. Failure means the target sustains no damage. In both cases, however, the vehicle itself sustains half that damage to itself.

A Vehicle which has been collided with gets a reaction and can choose to either move away or collide again. Damage from colliding vehicles overrides the Damage Threshold on both the attacking and defending vehicles.

CRUSH

Crushing is striking a mount, person, or critter with the vehicle.

DIVE

This makes the vehicle move downwards a number of feet equal to its Acceleration in one turn. A vehicle in motion will continue in the last direction (downward) until an action is taken to change that. A normal dive is one that is less than 15 degrees. If they wish to dive faster, they must make a turn.

FORWARD

This makes the vehicle move forward a number of feet equal to its Acceleration in one turn, unless the vehicle is already in motion. A vehicle in motion will continue in the last direction (forward) until an action is taken to change that.

HARD BRAKE

A hard brake causes the vehicle to reduce its speed by double its Acceleration until a speed of zero is reached. Note that in the turn the vehicle begins to brake, it will still travel the distance of any remaining speed.

Jostling happens.

JOSTLING

Passengers, pilots, and crew in Open Vehicles must make a STR (athletics) Check after any collision, braking, or turn of greater than 45 degrees.

The DC of that Check is equal to the Vehicle's Handling+(Maneuver+Speed) in that turn. On Success, nothing will happen.

On Failure, they will be thrown in the direction of a collision on impact (or direction of movement on stop) a number of feet equal to the Speed Mod of the vehicle in that turn and taking that amount of Crushing Damage (falling damage). This can happen even if there is something that would arrest their motion.

Hildegard yanks the wheel in a tight turn while traveling at a speed that turn of 176. Her passengers in the back are jostled about.

The Vehicle's Handling is 10. The turn is a 90 degree turn and so adds 3. The vehicle is traveling at 176, which adds 0, for a total DC of 13. Jazzer rolls an adjusted 12, fails his strength check and is flung about the cabin. He ends up on the opposite side of the cabin but takes no damage. Had Hildy been going 264 or more, he would have taken damage.

LAND

For Vehicles which Fly, this is the maneuver to bring them onto the ground. It can only be initiated when the vehicle is within 1 turn of the ground based on its current speed.

A Flying vehicle is moving at a speed of 580. The Pilot can land the vehicle if it is within 580 feet of the ground.

Landing for flying vehicles takes an number of feet equal to the speed of the vehicle to be able to slow momentum to come to a stop, except for Brooms and Carpets.

RAM

A Ramming Attack causes the vehicle to directly impact another vehicle. Ramming Attacks multiply the speed of the vehicle in that turn by 2 to determine damage. The Ramming Vehicle suffers one half the damage.

REVERSE

This makes the vehicle move backwards a number of feet equal to its Acceleration in one turn. A vehicle in motion will continue in the last direction (backward) until an action is taken to change that.

SPIN

A Spin is possible only for Swimming or Flying vehicles. The Vehicles rotates in space to face the opposite direction. Jostling happens.

STOP

A stop can only be performed when the vehicle has a speed that turn of 100 or less. The vehicle stops abruptly. Jostling happens.

STRAFE

Strafing is coming close enough to a target to fire weapons while moving in a direct line.

SURFACE

For Vehicles which Swim (submersibles), this is an action that takes the vehicle to the surface of the water. This presumes a climb of less than 15 degrees. If they wish to surface faster, they must make a turn.

TURN

This is the smallest sized circle a vehicle can turn in. A vehicle in motion will continue in the last direction (turning) until an action is taken to change that. Turns very frequently have jostling, because any turn tighter than 23 degrees will jostle occupants.

All vehicles have a Turning Radius. They cannot make a turn more tightly than that turning radius. Vehicles which do this will capsize, braking until they reach a speed of zero, jostling occupants with a -5 penalty to their roll.