LEGO® Pirate Wars

1.0 Introduction

LEGO® Pirate Wars is a naval miniatures war game based on figures and models available from LEGO®. You will need at least two LEGO® model ships and lots of extra figures to man the ships. The Ship Data Chart details the number of figures needed to crew a ship.

The game uses a six sided dice (d6) to resolve combat and check for morale. The number needed for a success is referred to as the target number and a roll less than or equal to the target is a success. A roll of a six is always a failure and a target number less than one is an automatic failure.

The ranges in the game are measured in chains. The standard LEGO chain is 17 studs long and the ranges for weapons will be listed in number of chains used to measure the range. A set of 8-12 chains linked together end to end is useful for determining ranges but pre-measuring of the range is not allowed.

1.1 Figures

Figures represent various crew members and all figures have a value for Attack and Melee. The Attack value is the figures ability to hit with a musket and their Melee is their value in boarding combat. See the Minifig Chart for the Melee and Attack of each of the major figure types as well as typical appearance.

One character is rather special and that is the Lady Pirate, though the following rules also apply to any other Lady figures in the game. The Lady Pirate uses the Attack and Melee of whatever position they hold on the ship with a bonus of +1 to their Melee attribute due to having an unlimited number of pistols hidden down their bodice. On the down side, all Lady figures are in love with the Imperial Lieutenants and will immediately surrender whenever they are on the same deck as an Imperial Lieutenant figure.

Minifig Chart

Minifig	Melee	Attack
Captain, Lieutenant	4	5
Marine	3	4
Pirate	1	3
Imperial Sailor	1	2

1.2 Weapons

Each weapon has attributes for Dice and Range. Dice is the number of d6 rolled for each attack and Range is the maximum distance that the weapon can attack as measured in lengths of chain. Only weapons with a "B" under range may be used at a range of 4 studs or less.

Weapons Chart

Weapon	Dice	Range	Target
Musket	1	4	Attack
Cannon, Shot	3	8	3
Cannon, Ball	3	12	2
Cannon, Lt Shot	2	6	3
Cannon, Lt Ball	2	9	2

1.3 Ships

All ships have the following attributes: Hull Factor(HF), Sail Factor(SF), Crew, Speed, Length, Sail Loss, and Extra Figures. The values for these attributes for each of the Lego® model kits is detailed in the Ship Data Chart.

The Hull Factor (HF) is the ability of the ship's structure to take damage and remain afloat. The higher the HF of a ship, the more damage it takes to sink. The HF is directly linked to the length of the boat and can be found by dividing the length in studs by 8. The HF also determines the number of figures and cannons that a ship may carry. See Ship Design for more information.

The Sail Factor (SF) is the amount of sail the ship has available to spread. The SF determines what the current speed of the ship is and how many figures are required to crew the ship. A ship requires one sailor for every SF in order to sail normally. In addition, the player may allocate additional sailors to shorten the sails, allowing the ship to move at a slower speed, but speed may only be lowered by complete Sail Factors. Damaged SF can be reset by tasking two extra figures per damaged sail. A ship may only change speed by 2 SF per turn unless they go adrift or make way from being adrift.

The Speed of the vessel is the number of studs the ship can move in a turn. The current Speed of the ship is determined by the number of SF and the heading of the ship. The Speed listed next to the highest open SF on the Ship Damage Chart is the ships current Speed. If the ship is tacking, the Speed is half the value listed. See the Wind Direction Chart to determine when a ship is sailing at full or tack.

The Crew of the ship is the number of figures needed to completely man the ship for sailing, firing and reloading cannons. The Crew is composed of a Captain, a First Mate, one sailor for every SF that the vessel begins with, and two sailors for every cannon on board the ship. Any vessel with a crows nest receives an extra figure to man it with a limit of one crows nest per ship.

The Length of the ship is the number of studs from where the brown hull touches the ground at the bow to where the hull ends just before the rudder. This line is called the waterline and is important for firing cannons during the Task phase. The Length of the vessel is used to determine movement and turning.

The Sail Loss of a ship is the amount of Speed lost each time a Sail Factor is destroyed. This value is used when filling out a Ship Damage Chart to determine the current Speed as SF are eliminated and reset.

The Extras column on the Ship Chart shows the extra pirates, sailors, or marines for each ship at the start of the game.

Ship Data Chart

Ship	HF	SF	Crew	Speed	Length	SL	Cannons	Extra Figures
Black Seas Barracuda	6	7	17	56	48	8	4	16 pirates
Carribean Clipper	4	4	8	48	32	12	4	8 marines, 1 Lieutenant
Imperial Flagship	4	5	11	60	32	12	2	8 marines and 1 lieutenant
Renegade Runner	3	3	7	48	24	16	1	8 pirates
Skull's Eye Schooner	6	8	18	64	48	8	4	16 pirates
Renegade Runner Mod.	3	4	10	64	24	16	2	4 pirates
Red Beard's Runner	5	7	15	70	40	10	3	8 pirates
Brickbeard's Bounty	5	7	15	70	40	10	3	8 pirates
Imperial Flagship(large)	7	10	28	80	56	8	8	8 Marines and 1 lieutenant
Black Pearl	5	7	15	70	40	10	3	8 pirates
Queen Anne's Revenge	6	9	19	72	48	8	4	8 pirates

2.0 Turn Sequence

Pirate Wars is played in turns to control movement and firing. Each turn is broken into four phases, each of which is completed before the next is begun. A new turn begins once all phases have been completed.

1. Initiative
2. Movement
3. Tasks
4. Morale

2.1 Initiative

At the beginning of each turn, all sides roll a d6 to determine initiative for that turn. Break all ties by re-rolling the initiative for the tied sides only. During the Movement phase, each side will move all of its ships, with sides going in the order of highest to lowest initiative. During the Tasks phase, each side performs tasks on all of their ships in the order of lowest to highest initiative. Ships engaged in Boarding will resolve boarding combat at the first initiative of either engaged players.

2.2 Movement

Ship movement is based on the current Speed of the ship, which is subject to damage and wind direction. Wind direction is determined at the beginning of the game by either a random die roll or by agreement of the players. Each ship must move all of its current Speed as modified for crew loss, sail loss, and heading. A ships movement is measured in a straight line and a ship turns by pivoting on its rudder. The number and maximum angle of turns depends on the current Speed and Length of the vessel.

A ship has three Speeds: Full, Tack, and Adrift. These speeds are based on the direction of the ship with respect to the wind. Full Speed is with the wind coming from aft to abeam and the ship moves its full current Speed. Tack Speed is when the vessel is sailing from abeam to aquarter and is one half the ships current full Speed. A ship that begins a turn within 45° of the wind, has no crew, or has no sails is adrift. Ships that are adrift will move 8 studs with the wind and turn 45° with the wind each turn until

running with it. A ship is running with the wind when its bow points in the direction the wind is moving. The speed of a ship under way is determined by its heading at the beginning of the turn, see the Heading Chart.

The simplest method of measuring a move is to place a marker next to the bow where it contacts the floor and move the ship forward until the keel just before the rudder is next to the marker. This distance is the Length of the ship shown on the Ship Data. The ship continues to leap forward like this until the remaining movement is less than the length of the ship, then the remainder of the move is counted off against studs on the ship.

A ship can turn up to 90° for every leap of at least one half its length that it makes during Movement. This is accomplished by making a normal movement leap and then swinging the bow to the desired angle while using the rudder as the pivot point. A ship that has a total move of less than one half its length during Movement may turn up to 90° providing it has sails and at least one figure on board.

After all ships have moved, they can adjust their headings by Falling Off the wind. Falling Off allows each ship to turn up to 45° with the wind up to running with it and is conducted in the same order of initiative as movement. This is used primarily to aim the cannons or to move through the wind to avoid being caught adrift in the next turn.

Example: The Skull's Eye Schooner is running abeam with the wind off the port, allowing it to move 64 studs. The player places a tile near the bow and pushes the ship forward until the rudder is just behind the tile. He then turns the ship 90° port which puts him heading straight into the wind. The player places the scale next to the ship and counts off another 16 studs to complete his move. If he were to stay in this position, he would be adrift next round, however, the player has done this with the intent of falling off the wind to aim his cannons. During his opponents turn, a ship moves to his starboard aft. With all movement complete, the Skull's Eye Schooner then falls off the full 45° which brings his cannons to bear on the enemy ship and leaves him at tack speed, 32 studs, for the next turn.

Ramming

Ramming is a form of attack that is executed during the Movement phase. In order to ram another ship, the moving ship must contact the hull of the target ship while moving forward. Contact is made if the two ships touch and the moving ship has enough movement left to make it contact hull to hull at a 45° angle or greater. Whenever one ship rams another, they both go adrift and neither ship may take any action during the Task phase of that round.

A ship that rams another takes 1 HF in damage, 2 if the other ship is larger. The rammed ship takes damage equal to one half the current SF of the rammer, rounded up, directly to its HF.

Either ship may declare a Boarding attempt in the following turn. During Boarding, both ships are lashed together and will move adrift every turn. If the impact is at an angle of less than 45° or was made during turning, then it is not considered a ramming and no damage is done to either ship, although either ship may declare a Boarding attempt.

Example A: The Black Seas Barracuda has become irritated with an Imperial Flagship and decides to ram during movement. The player advances his boat forward and strikes the Imperial Flagship after moving only 32 of its of movement. The Barracuda was at full sail with 7 SF and does 4 points of damage to the Flagship while taking one himself. The Barracuda loses his top HF and the two SF above it which causes him to also lose three pirates. The Flagship loses all four of its HF which sinks it at the end of the movement phase. The Flagship crew is reduced by nine figures, four for the HF and Five for the SF. In addition, one half of the remaining crew dies along with the Captain, the rest end up in the water. The player puts 4 marines and the Lieutenant in the water in front of the Barracuda. The Black Seas Barracuda is adrift in the next round and the pirates on board may not perform any tasks until next round.

Example B: An Imperial Flagship approaches the Skull's Eye Schooner in the next round. The Player decides to board and makes a turn after the first leap to make the contact less than 45°. Halfway through the second leap, the ships contact but no damage is done to either.

Running Aground

All ships will run aground if they get too close to reefs or islands. The safe depth a ship can sail in is referred to as its draft. For narrow ships, the draft is 8 studs, for wide it is 12 studs. If a ship sails into reefs that are shallower than its draft or nearer to an island than its draft, then it has run aground. A ship takes one point of HF for running aground plus an additional point for every four studs less than its draft. This damage is repeated for every full hull length moved through the shallow water.

2.3 Tasks

All figures can perform only one of the following actions during the Task phase: Boarding, Firing, Moving, Reloading, and Sailing. Any figure that is not firmly joined to some part of the ship by either hand or foot cannot perform any task that round except Moving. Any figure that is set on the ground or knocked off the ship at any time is considered overboard where ever it lands.

Some figures are restricted to certain tasks while others have greater freedom. Captains and First Mates may perform any task and can move freely about the ship without counting it as a task. Pirate crew and Imperial sailors may also perform any task, however, movement is considered a task for them. Imperial marines may only fire and reload muskets and participate in Boarding.

Boarding

A player may declare a boarding attempt in the round following a ramming or in any round that two ships contact without ramming. The figures on a ship may not perform any other tasks while it is engaged in Boarding.

Both players sum up the Melee values for all of the figures on board their ships. The numbers from the two sides are compared and the side with the higher number gains a bonus equal to the difference between the to numbers referred to as the Advantage.

Each player rolls 1d6 and the player with the advantage adds it to their roll. The result of the die roll or die roll plus advantage is the number of figures that the opponent loses from their ship.

The ship that loses the least number of figures is the winner and they may decide to either continue boarding in the next turn or to break free and sail off. If they continue combat, then they board the other ship on the next turn. Please note that any Lady Pirate will immediately surrender to any Imperial Lieutenant that is on the same ship. Even if the Lady Pirate happens to be the Captain.

Example: The Imperial Flagship has initiative and has made hull to hull contact with the Black Seas Barracuda. On the Imperial players initiative, she declares a boarding attempt. The Barracuda has 30 pirates left alive on board after the ramming. Of these, 1 is the Captain and two are Lady Pirates giving them a total of 37 (27 regular pirates (1 each), two Lady Pirates (3 each) and 1 Captain (4 each)). The Imperials have 8 Marines, 1 Imperial Lieutenant, 1 Captain and 10 sailors for a total of 42 (8 Marines (3 each), 1 Imperial Lieutenant (4 each), 1 Captain (4 each) and 10 sailors (1 each). The Imperials have an advantage of 5. Each side rolls 1d6 and the Imperials roll a 2 while the pirates roll a 5. The Imperials add their Advantage for a final number of 7, giving them a victory while killing 7 pirates and losing 5 of their own. The pirate player opts to lose 7 regular pirates while the Imperial takes his casualties from his sailors and presses the attack on the next turn. Since they are now on deck, the 2 Lady Pirates immediately surrender leaving the pirate player with 20 regular pirates and 1 Captain for a total of 24. The Imperials are now at 35 giving them an Advantage of 11. Things aren't looking too good for the pirates but at least the Lady Pirates will survive.

Firing

The player states which figure is firing which weapon and at which ship. The player must also declare whether they are firing shot or ball out of their cannons. The ship must be within the maximum range of the weapon, which is measured from the closest firing weapon to the target using a chain. The player must declare all attacks before rolling any dice or measuring any ranges. See the Weapon Chart for ranges, target numbers and the number of dice used for each weapon.

Cannons must be able to establish a straight line down their bore to the waterline of the target in order to hit. The best method of sighting is to flip up the cannon port covers on both sides of the ship and to sight over them. Cannons on turrets may fire at any target they can point at as long as the barrel doesn't point at a portion of the ship.

Cannons that fire shot have a shorter range with a higher target number, but they only affect sails. All hits with shot cause double damage if the attacking ship has at least one cannon dead ahead or astern of the target.

Cannons that fire ball have a longer range but a lower target number. Cannons that fire ball achieve critical hits when all three dice roll successful hits. Roll a d6 and refer to the Critical Hit Chart for the effect. If any cannon rolls three 6's, then the cannon has exploded, destroying the cannon and its crew. Cannons may not fire at any target while a ship is adrift or locked in boarding combat.

All of the muskets on a ship may fire at figures on another ship as long as at least one musket has range to the hull of the target ship.

The Captain of a ship may scuttle it by firing his pistol into the powder stores at the end of the Task phase. The ship receives its full HF in damage to the hull, killing an equal number of crew and an equal number of boarders, if any. Any ship engaged in Boarding it receives one half the HF in damage applied as a ball hit.

Critical Hit Chart

Roll	Effect
1	The rudder is destroyed, ship goes permanently adrift.
2,3	A cannon and it's crew are destroyed.
4	A mast is sheared, ship goes adrift for 1 turn.
5	The Captain is killed.
6	The powder stores hit, ship suffers 3 hits to its HF.

Example A: The Skull's Eye Schooner has a full broadside on target for an Imperial Flagship and fires 2 cannons with shot and 2 cannons with ball, in that order. The dice are rolled in groups of 3 for each cannon starting with the shot. The first cannon fires shot and rolls 3, 3, and 6 which removes the top 2 SF and 2 sailors. The second cannon fires shot and rolls 1, 4, and 6 which skips the next open slot, an HF, and takes out the third SF and another sailor. The third cannon fires ball and rolls 1, 2, and 3 for 2 hits which take out the first and second HF along with 2 more figures. Th fourth cannon fires ball and rolls 1, 2, and 2 for 3 success which take out an SF, an HF, and another SF along with 3 figures. Since all three rolls were successful and the cannon fired ball, the player rolls a d6 for the resulting critical hit. The roll is a 2 which destroys a cannon and 2 crew members. The total damage to the Flagship is 5 SF, 3 HF, 10 figures and a cannon. The ship is adrift next turn and has lost most of its starting crew of 19 figures.

Example B: The Imperial Flagship returns fire as though it had not yet been hit, casualties and damage are applied at the end of the phase. Both cannons fire shot at a target of 3 and they get 4 successes total. The Imperials also fire 8 muskets, rolling 8d6 against a target number of 4 and achieve 6 successes. The total damage to the Schooner is 4 SF and 10 pirates.

Moving

The figure may move to any location on the ship. Any overboard figure may move up to eight studs by swimming, and if it starts within eight studs of a friendly ship, they may board it. Any figure that falls on the floor or is set down by the player has fallen overboard and may not re-board in the same round. Figures may move a cannon from one side of a ship to the other. This requires two figures to accomplish and the cannon can not fire or be reloaded in the turn it moves.

Reloading

A cannon takes one round for two figures to reload or two rounds for one to reload. Muskets take one figure one round to reload. Figures manning cannons are indicated by facing the figures toward the cannon and equipping them with either a shot or a ram rod. Imperial Marines cannot reload or fire cannons on board a ship.

Sailing

The figure is adjusting sails or steering the vessel. During the task phase, there must be as many crew sailing as there are remaining SF or the ship loses the extra SF, which must be reset. Place one crew at the helm and split the remaining between deck and top castles. The ship regains one SF at the end of the turn for every two crew tasked for sailing above the remaining SF. A ship may reset up to two SF per turn, but may never reset more SF than the total remaining HF of the vessel. Imperial Marines cannot sail.

3.0 Morale(Plus Sharks)

Certain conditions will require the crew of a ship to make a morale test to remain in a battle. The target for the morale check is 5 minus any modifiers from the Morale Chart. Add the modifiers together if multiple conditions exist. The player rolls one die for each ship affected. A crew that mutinies will throw the Captain overboard and attempt to flee. If the crew passes a morale check in the next turn, they may return to the battle, otherwise the ship is removed once it is outside cannon range of the enemy. Imperial ships do not check for morale as long as there are Marines still alive on board.

Any figure that ends up in the water is likely to become shark bait. A d6 is rolled for every figure in the water, and on a 5 or 6, the figure is eaten by sharks. The Pirate Captain will always be the last pirate figure from a given ship to be eaten.

Morale Chart

Cause	Mod.	Effect of Failure
Ship is adrift	-1	Abandon ship or surrender.
Lost in boarding	-2	Surrender to enemy.
Captain is dead	-2	Ship flees.
One half of crew is lost	-2	Crew mutinies and flees.
Imp. Lieutenant boards	Auto	All female pirates surrender.

Examples: The Black Seas Barracuda took a stern rake from the Imperial Flagship that they broke off boarding combat with last round. As a result, they have no sails left and are out another 5 pirates bringing their total to 13 including Captain and First Mate. The original crew size was 33. The target number for the morale starts at 5 with a -1 modifier for being adrift and a -2 modifier for being at half crew or less, yielding a result of 2. The roll is a 3 and the crew mutinies. The Captain is dumped overboard while the sailors reset sails in order to flee. At the end of the next round, the player rolls another morale check. The target number starts at 5 with a modifier of -2 for half of the crew being dead, yielding a result of 3. The roll is a 4 and the ship is out of the battle as soon as it leaves cannon range of the nearest Imperial ship.

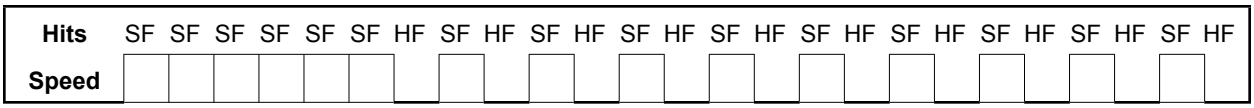
Example: Our hapless Captain and another pirate are in the water after their ship sank when the local sharks become interested. Two dice are rolled with results of 3 and 5. The pirate is eaten because Pirate Captains always live to the last. He gets munched two turns later.

4.0 Damage Chart

The Damage Chart is used to keep track of the amount of damage a vessel has taken. Before starting a game, you will need to cross off the extra lines on the chart to make it reflect the ship you are using. Start at the first HF and count HF's down the column until you reach the number shown in the Ship Data Chart for your ship's HF. Cross off everything below this. Next, count from the first open SF at the bottom of the chart until you reach the number shown in the Ship Chart for your ship's SF. Cross off everything above this. Place the Speed shown on the Ship Chart next to the top most SF on your chart and fill in the remainder of the speed ratings next to the SF's by subtracting the Sail Loss (SL) shown in the Ship Chart. See the example of the completed chart.

Damage is marked off of a ship starting at the topmost undamaged line and crossing off one line for each hit of damage, skipping any lines already crossed off. If the damage is from a cannon firing shot, then it only crosses off SF's. A ship may only have as many SF as remaining HF once it has taken damage to the HF. Any excess SF are immediately crossed off and may not be reset. Erase the lines over SF's as sails are reset. The ship loses one figure for every HF or SF lost.

When a ship reaches 0 HF, it sinks and is removed from play at the end of that phase. One half of the remaining crew dies and the rest end up in the water. The Captain of an Imperial vessel always goes down with his ship, the Pirate Captain always ends up as shark bait.



5.0 Prize Crews

A Prize Crew is assigned to sail a ship that was captured during Boarding. The Prize Crew consists of a number of figures equal to the remaining SF on the captured ship. Additional figures may be transferred to the Prize Crew to man cannons or act as boarders. The Imperials may prize a ship by placing the Lieutenant and a number of marines equal to one half the captured crew on board. A ship captured by the Imperials cannot engage in further battle and must leave the area immediately. The ship is removed once it is beyond cannon range of any remaining enemy ships.

6.0 Ship Design

The attributes given for the LEGO® models on the Ship Data Chart were derived using the following set of design rules.

6.1 Hull Type

There are two types of hulls available, 8's and 12's. The widths are determined by the width of the base deck in studs. An 8 is a narrow hull ship and includes the Renegade Runner and Imperial Flagship. The 12's are wide hull ships such as the Black Seas Barracuda, Carribean Clipper, or Skull's Eye Schooner. The major differences between the two types of hulls are the tonnage, cannon configuration, and draft.

The 12's tonnage is equal to one and one half times the HF, rounded up. It can carry back to back cannons or cannons that move from side to side, either on wheels or slides (see the Skull's Eye Schooner). They have a draft of 12 studs, see Running Aground in the Movement section.

The 8's tonnage is equal to its HF. It can only carry cannons configured to move from side to side on wheels or slides and can never have cannons configured back to back. The draft is 8 studs.

6.2 Hull Length

The hull Length directly determines the HF of the ship. The HF of a ship is equal to its Length divided by 8. The bow and stern hull sections added together have a Length of 24. Each center hull section has a length of 8 studs. Once you have determined the Length of the vessel, divide it by 8 to get the HF or add 3 HF for the bow and stern sections plus 1 HF for every additional center section. The minimum Length for a ship is 24 and the maximum is 80. Record both the Length and the HF.

Example: The Skull's Eye Schooner has bow and stern sections plus three center sections giving it a total HF of 6 and a Length of 48 studs.

6.3 Sails

The models produced by Lego® may have one of six types of sails; mainsail, topsail, high topsail, gaff sail, lateen, and jib. Each sail has a Sail Factor and the sum of the sails is the SF for the ship. The number of Sail Factor required to achieve a given speed is dependent on the HF of the ship, with the HF determining the Sail Loss for each SF. Divide the desired Speed by the Sail Loss to determine the number of Sail Factor and drop any fractions. The final Speed of the ship is equal to the Sail Loss times the SF. The SF for a ship must always be less than one and one half its HF. The slowest a ship can be designed to move is 48 studs.

The main sail, topsail, and high topsail are all square rigged sails with a yardarm at the top. The main sail spans from the first yardarm mount to the second, the topsail spans from the second yardarm mount to the third, and the high topsail spans from the second yardarm mount to the top mount. Regardless of the sails used, the first of the square rigged sails on a single mast adds two SF and any additional sails on the same mast adds one SF.

The gaff sail is supported by two yardarms that pivot off the back of the mast with the upper arm, called the gaff, at an angle to the lower arm. The gaff sail has an SF of two.

The lateen is a triangular sail supported from the top of a single mast by one yardarm. The small triangular sails provided by Lego® provide one SF.

The jib is a small triangular sail mounted between the front mast and the bow. The jib provides an SF of one.

For appearances, the ship may be built with more sails than it could normally use.

Example: The designer of the Skull's Eye Schooner wanted a Speed of 70. The designer finds the row for a 6 HF and finds that the Sail Loss is 8. Dividing the Speed of 70 by the Sail Loss of 8 yields a result of 8 with the fraction dropped. The Skull's Eye Schooner ends up with a Speed of 64 studs using 8 SF. The Skull's Eye Schooner

cannot add an additional SF because one and one half its HF is 9 and the total SF must be less than this.

Sail Loss Table

HF	Sail Loss
3	16
4	12
5	10
6-7	8
8-10	6

6.4 Masts

The masts on board a ship support the sails and are limited by the sail types and number. Masts are either single or stepped. A single mast is mounted directly to the deck without ratlines while a stepped mast will have ratlines fastened to a crosshead or top castle. Stepped masts may have multiple steps but each step other than the top must have ratlines and a crosshead or top castle.

A single mast may only carry a single square rigged sail (Main, Top or High Top), a single Gaff rigged sail, a square rigged and Gaff rigged sail or a lateen sail. Each section in a stepped mast may carry one square rigged sail or a square rigged and Gaff rigged sail. The front mast of the ship always has a jib.

The width of the ship determines the types of masts it may use. An 8 wide can mount only single masts and a stepped mast with one level of short ratlines. 12's can mount single, stepped or multiple stepped masts.

The number of masts on board a ship will vary from 1 for a small ship to 3 or more for very large ships and is partly dependent on the modeling as well as on the number of sails needed to move the ship. A general rule of thumb is to divide the SF by 3 to get the number of masts, but this is not a hard and fast rule, just a starting point.

Example: The designer of the Skull's Eye Schooner needs enough masts to loft 8 SF of sails. The SES has a jib that counts as one and the Designer wants to use stepped masts of only one level, allowing each mast to mount two sails for a total SF of 3 per mast. This give him two masts to use and one SF left which allows him to mount a mizzenmast with a lateen rigged sail on the stern.

6.5 Tonnage

The ship now has values for its HF, SF, Speed, Length, and Sail Loss and all that remains is the crew and cannons. The sailing crew of the ship is equal to the SF for the ship plus two. This translates into one sailor for every Sail Factor plus a Captain and a First Mate. The additional crew and equipment is limited by the tonnage of the ship.

The ships tonnage is equal to its HF for 8's and one and one half its HF, rounded up, for 12's. The tonnage is then allocated for crew, cannons, marines, cargo, etc. One ton is equal to 4 figures, 1 cannon and 2 figures, or 4 chests or barrels. Imperial ships that

are 12 width can double load cannons without regard to tonnage allowing them to mount one cannon on each side of the ship for each ton of capacity. The Imperial Lieutenant does not count against tonnage and is included with the first 4 marines put on the ship.

Example: The Skull's Eye Schooner is a 12 with 6 HF, resulting in 9 tons of space available (6 multiplied by 1.5). Being a pirate ship, it cannot have more than one half its tonnage in cannons so the designer puts 4 cannons on the gun deck on slides to allow them to have a broadside of 4 cannons on either side of the ship. The designer then adds 4 tons of pirates, a total of 16 extra figures. One half of the extra pirates may have muskets. This leaves one ton of space open for treasure chests.

The Imperials have the Man-O-War which is the same as a Skull's Eye Schooner, but because it is an Imperial Ship, it mounts 4 cannons to each side rather than four that have to be moved back and forth across the deck.

6.6 Design

The actual configuration for your ship depends on your imagination and how many pieces you have. However, there are some general guidelines in designing ships.

- Ships with two or more cannons typically mount the cannons on the gun deck. The cannons face out gun ports on one or both sides of the ship and may be mounted on wheels or slides.
- Rear facing cannons, called stern chasers, can be mounted singly or dually on 12's in the hull.
- Pirates may allocate a maximum of one half of the tonnage to cannons.