

Sail ships of the line (1st class, 120 guns)

Improved OCEAN class (launched 1819-54)

VALMY (launched 1847)

BRETAGNE class (cancelled 1852)

Improved OCEAN class sail ships of the line (1st class, 120)

Displacement:	5082t
Dimensions:	206ft 8in wl, 209ft 5in deck x 53ft 10in mld (last two 54ft 4in), 55ft 4in ext x 25ft 10in mean, 26ft 9in max. Depth 24ft 6in
Same, meters:	63.00, 63.83 x 16.40 (16.56), 16.86 x 7.88, 8.15m. 7.46m
Masts:	Main 64ft 2in x 3ft 6in; Fore 58ft 2in x 3ft 3in; Mizzen 55ft 11in x 2ft 3in. Sail area 3887 sq.yd.
Armament:	(1817) GD 32-36p; MD 34-24p; UD 34-18p; SD 14-8p, 12-36p carr. (<u>Souverain</u> and <u>Friedland</u> , c1841) GD 32-30p No.1; MD 30-30p No.2, 4-22cm No.1 shell; UD 34-16cm shell; SD 20-30p carr. (16-30p carr., 4-16cm shell, in <u>Friedland</u>). (<u>Ville de Paris</u> c1851) GD 24-30p No.1, 4-22cm No.1 shell, 4-50p; MD 28-30p No.2, 6-22cm No.2 shell; UD 34-30p No.3; SD 12-16cm shell. (<u>Friedland</u> 1853) GD 24-30p No.1, 8-22cm No.1 shell; MD 26-30p No.2, 8-22cm No.2 shell; UD 34-16cm shell; SD 12-30p carr., 4-16cm shell. (<u>Louis XIV</u> c1854) GD 28-30p No.1, 4-22cm No.1 shell; MD 30-30p No.2, 4-22cm No.2 shell; UD 34-30p No.3; SD 12-30p No.4.
Complement:	1089

Name	Builder	Laid down	Launched	Commiss.	Fate
SOUVERAIN	Toulon	4.13	25.8.19	16.4.40	Steam 1854
TROCADERO	Toulon	10.13	14.4.24	--	Burned 1836
FRIEDLAND	Cherbourg	5.12	4.4.40	5.10.40	Stk. 31.12.64
VILLE DE PARIS	Rochefort	6.07	5.10.50	1.4.51	Steam 1858
LOUIS XIV	Rochefort	4.11	28.2.54	24.3.54	Steam 1857

Class. Five earlier ships of this class plus two of the original Océan class, all designed by Sané, were afloat in 1816. The height of the lower battery above the water in this class was 5ft 4in. Trocadéro, originally Formidable, was renamed in 1823 to commemorate a victory in that year in Spain. The frame for Friedland was begun at Le Havre 7.11. Originally named Inflexible, she was renamed Duc de Bordeaux on 1 May 1821 and Friedland on 9.8.30. The frame for Ville de Paris was produced at Nantes between 2.06 and 9.07. Originally named Ville de Vienne, she was renamed Comte d'Artois on 8.7.14 and 15.7.15 and Ville de Paris on 9.8.30. Louis XIV was originally Tonnant, renamed 26.12.28. She became gunnery training ship at Brest in 1861, moved to Toulon in 1865 to relieve the gunnery training ship there, Montebello, and served until 1872.

Disposals. Trocadéro was lost when the temporary roof protecting her hull while in reserve caught fire during careening. The conversion of Friedland to steam was cancelled in 1858. She was renamed Colosse in 4.65, relieved Généreux as a barracks hulk for seamen at Toulon, and was BU in 1879.

VALMY sail ship of the line (1st class, 120)

Displacement:	c5500t
Dimensions:	209ft 8in wl, 210ft 8in deck x 55ft 1in mld, 57ft 1in ext x 27ft 6in mean, 28ft 8in max. (Beam 59ft 5in ext and draft 26ft 11in mean, 28ft 2in max after sheathing)
Same, meters:	63.90, 64.20 x 16.80, 17.40 x 8.37, 8.74m. (18.11 x 8.21, 8.59m)
Masts:	As improved <u>Océan</u>
Armament:	(Designed) GD 32-30p No.1; MD 34-30p No.2; UD 34-30p carr.; SD 16-30p carr., 4-18p. (1849) GD 24-30p No.1, 8-22cm No.1 shell; MD 26-30p No.2, 8-22cm No.2 shell; UD 34-16cm shell; SD 12-30p carr., 4-16cm shell.
Complement:	1089

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Commiss.</u>	<u>Fate</u>
VALMY	Brest	1.3.38	25.9.47	12.2.49	Stk. 31.12.64

Class. A three-decker named Formidable was among five ships of the line scheduled to be begun at Brest in 1829 but cancelled in late 1828 before orders were placed. Plans were later made to begin a similar ship of the same name in 1837--this ship was renamed Valmy 26.11.36. Her designer, Leroux, generally followed the lines of Sané's Montebello (Océan type) but slightly increased the length and beam and reduced the tumble-home in the sides above the waterline. His plans were approved in 12.37. Although the French had begun in the late 1820s to build some of their new warships with rounded sterns in an effort to strengthen them, Valmy was given a traditional square stern. Valmy's designed draft was 26ft 1in mean and 27ft 3in max with a displacement of 5231t, a depth of hull of 24ft 8in, and a height of the gun deck ports over the water of 6ft 7in. Initial trials showed that she was overweight and also raised questions regarding her stability, which was augmented by adding a 12in thick, 9ft 10in high wood sheathing to the hull at the waterline. The modification also raised the actual height of her battery from 5ft 7in to 6ft 1in.

The French made several efforts to update their largest sailing warship. In 8.55 plans were submitted for lengthening her 44ft 1in amidships and giving her 900nhp machinery. The result would have been a ship with the displacement and armament of the steam Bretagne but without that ship's fine lines. In 2.56 plans were submitted for giving Valmy 500nhp machinery without lengthening her. A set of 600nhp machinery ordered in the same month with the engines of Louis XIV was tentatively earmarked for her but was cancelled in 5.56. The most ambitious plans were those drawn up in 6.59 for converting Valmy into an ironclad. Brest proposed removing two decks and fitting a battery armament of 20-50p and 12-16cm rifles and a spardeck armament of 4-16cm rifles and 8-30p carronades (4 of which would be in a small armored casemate with the conning station). The Council of Works in Paris proposed also retaining part of the middle deck to form a much larger casemate with 18-16cm rifles, four of which could fire fore and aft over the lower ends. Armor in both proposals was 4.7in, reduced to 3.9 or 4.3in at the edges. None of these plans materialized, and the ship remained in reserve after completing her Crimean War service in late 1855.

Disposal. Valmy replaced Borda (ex Commerce de Paris) as school hulk for the naval academy at Brest 8.63 and assumed the name Borda. She was replaced by Intrépide in 1890, traded names with her replacement, and was BU 1891.

BRETAGNE class sail ships of the line (1st class, 120)

Displacement:	?
Dimensions:	As improved <u>Océan</u> but with molded beam increased to 54ft 7in (16.64m)
Masts:	As improved <u>Océan</u>
Armament:	(Designed) Probably similar to <u>Ville de Paris</u> , c1851.
Complement:	1089

<u>Name</u>	<u>Builder</u>	<u>Laid down</u>	<u>Launched</u>	<u>Commiss.</u>	<u>Fate</u>
BRETAGNE	Brest	4.8.51	--	--	Canc. 10.9.52
DESAIX	Cherbourg	27.10.51	--	--	Canc. 10.9.52

Class. Construction of a new three-decker named Terrible was planned to start in 1849 at Brest but was cancelled in 1848 because of budget cuts. Two ships, Bretagne at Brest and Desaix at Cherbourg, were then scheduled to start construction in 1850 and were finally ordered on 15.3.51. The poor performance of Valmy in her trials caused the navy to return to Sané's classic three-decker design with minimal modifications for these ships. (The modifications, carried out in mid-late 1851 by de Gasté for Bretagne and by Forquenot for Desaix, were limited to a 8in reduction in the tumble-home of each side and a slight increase in beam, which was justified on the grounds that the actual measurements of the later ships of the improved Océan class exceeded their designed beam of 53ft 10in by up to 9in.) A proposal to give them 160nhp steam engines for 4.5kts was rejected to avoid compromising Sane's design--machinery was to be added later if deemed useful.

On 17.6.52 the minister suspended construction of these two ships and asked the ports to propose plans for lengthening them 11ft 3in and giving them 540nhp engines. Brest submitted a plan in 9.52, but in the meantime the Napoléon had achieved her brilliant trial results. The minister now wanted fast battleships and cancelled the two sailing ships on 10.9.52. Bretagne was 3/24ths complete when she was dismantled and replaced on the slip by the fast battleship of the same name. (This was officially regarded as a redesign!) Desaix was barely begun (a tenth of a 24th) when abandoned, and the fast battleship Arcole was ordered in her place.