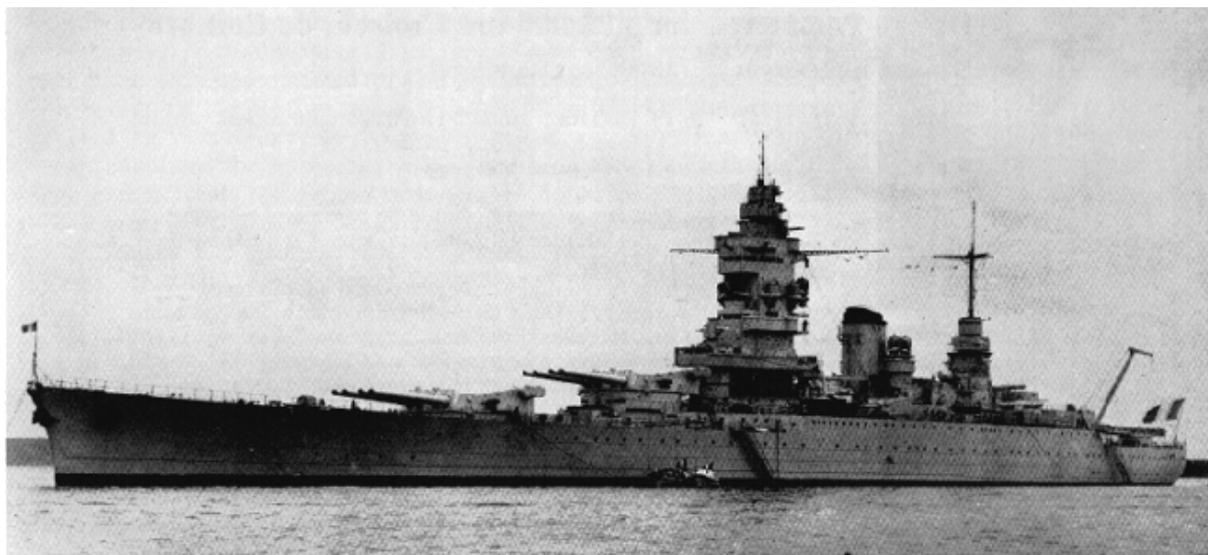


DUNKERQUE CLASS BATTLECRUISER

BRIEFING

written by

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KEY INFORMATION

Country of Origin:	France
Manufacturers:	Navy Yard (Brest), Penhoët and Loire (St. Nazaire)
Major Variants:	-
Role:	Trade Protection, Convoy Cover
Operated by:	French Navy
First Laid Down:	24 December 1932
Last Completed:	December 1938
Units:	<i>Dunkerque, Strasbourg</i>

OVERVIEW

With the end of the First World War the French navy was in a much weakened state. 40% of its ships had been lost during the war, and not replaced due to priority being given to the army. In the immediate post-war years financial constraints prevented any large ships from being built, and construction focused on destroyers and cruisers. Tentative approval to the construction of new battleships as part of an overall naval programme was given in 1924, and design studies began in 1926. Germany's announcement of the construction of pocket battleships in 1928 provided a focus for designers, and the new French battleships were intended to counter this threat. Approval for construction was finally given in late 1931.

The main guns were chosen to be 330 mm (13 in), and it was decided to mount them in two quadruple turrets forward of the superstructure. This gave considerable weight saving over a quadruple turret design by reducing the length that needed armour protection and reducing the total number of turrets. It also had the advantage of allowing the full weight of fire to be used in a chase situation, as it was expected that the pocket battleships would attempt to flee when confronted with such an obviously superior vessel. The potential vulnerability of this arrangement was reduced by having an armoured bulkhead between the two turret halves, and by having separate magazines for each turret half. To address the potential weakness to attacks from astern the superstructure was designed to maximise the arc of fire available to the guns.

The selection of secondary armament was somewhat revolutionary. They were the first capital ships to choose HA/LA (high-angle / low angle) dual-purpose secondary armament, for use both as anti-aircraft and anti-surface weapons in stead of the traditional separate secondary guns for surface targets and smaller tertiary guns for air targets. This had the advantage of giving more guns for either air defence or surface defence, provided that both were not required at the same time. As with the main guns, these were placed in quadruple mounts and separated in to half-turrets by an armoured bulkhead. The guns were 130 mm (5.1 in) calibre and were placed at the stern of the ship to provide some protection in that area from surface attack. Close range protection against aircraft was provided by ten 37 mm (1.5 in) cannon in five double mounts, as well as machineguns.

The armour gave the ship a theoretical immunity zone of 16,600 to 28,400 m (18,160 to 31,060 yds) against a 280 mm (11 in) gun, meaning that at ranges below 16,600 m a 280 mm shell could be expected to penetrate the side armour, and above 28,400 m a 280 mm shell could be expected to penetrate the deck armour. It must be stressed that this is a theoretical calculation, as in practice several factors (particularly the sea state) affect the actual resistance to shells at the instant they hit, and the immunity zone is constantly changing as the ship heaves, rolls and pitches. It's also worth noting that the armour for the *Dunkerque* was designed to resist the relatively small calibre guns of the pocket battleships, rather than the much larger guns of true battleships.

The ship was designed for 29.5 kts at 'normal' (design) displacement, following the normal design principle that the ship should be able to out-run anything that it could not out-fight. This gave a 2 kt advantage over the German pocket battleships, and matched the speed of contemporary cruisers. The design was very fuel efficient, and sufficient fuel was provided to allow over 16,000 nautical miles at 17 knots, enabling the navy to meet its worldwide colonial commitments.

Hangar space for two Loire 130 seaplanes was provided, along with a single catapult and a single crane, on the stern of the vessel. A third aircraft could be carried on the catapult, however this is not believed to have occurred in practice. The *Dunkerque* was the first capital ship to have aircraft included as part of their initial design, and they were intended for reconnaissance and to spot the fall of shot.

These ships were well suited to their chosen role of protecting French commerce worldwide from the German pocket battleships. Faster, better armed and better protected than the pocket battleships there is little doubt that they would have overwhelmed them in an engagement. There were some minor shortcomings, however: the action at Mers el Kébir confirmed their vulnerability to battleship-calibre guns (although it confirmed the wisdom of the armoured bulkhead dividing the turret halves), and the loading arrangement of the secondary armament was not a success. Nevertheless, many of the design concepts were brought forward in to later classes of French battleships, and they influenced the design of both the British and the Italian ships of the time.

UNITS

	Builder	Laid Down	Launched	Completed	Left Service
Dunkerque	Navy Yard (Brest)	24 December 1931	2 October 1935	1 February 1936	27 November 1942
<p>The <i>Dunkerque</i> was based in Brest when Germany invaded Poland, and her first task was to cover the movements of French cruisers from Brest. The Atlantic fleet was then reorganized, and the <i>Dunkerque</i> became part of the 1ère Escadre de Ligne, which also contained the most modern cruisers and destroyers. This force was primarily intended to counter the two German pocket battleships known to be at sea, as well as being available to provide a covering force for convoys. The force put to sea to on 22 October protect convoy KJ3 from the pocket battleship <i>Deutschland</i>, although the threat never materialized.</p> <p>The force next left port on 25 November to operate with the British searching for what was believed to be the <i>Deutschland</i>, although in fact the ships were the <i>Scharnhorst</i> and the <i>Gneisenau</i>. This search took place in very poor weather conditions, which caused some damage to the <i>Dunkerque</i>. Nothing was found, and she was ordered back to Brest on 30 November. In December she carried gold to Halifax (Canada), then returned as part of the escort for a Canadian troop convoy.</p> <p>Conscious of the potential for war with Italy, the <i>Dunkerque</i> was moved to Mers el Kébir, in North Africa, at the start of 1940. When this threat did not materialize she returned to Brest in preparation for an operation to Norway in conjunction with the British, but this was cancelled when the Germans invaded Norway and she was sent back to Mers el Kébir. On 23 June, after Italy had declared war on France, she left port in company with the <i>Strasbourg</i> to intercept Italian cruisers which were threatening a French convoy. The Italians withdrew before battle could be joined, and she returned to port. She was still there when the armistice was declared on 25 June 1940.</p> <p>On 3 July the forces in Mers el Kébir were fired on by British warships after they refused to accept British terms for disablement or surrender. The <i>Dunkerque</i> was hit by three shells whilst heading out of port, and she had to be beached. On 6 July she was attacked by British torpedo bombers, which hit the ship alongside her, setting off depth charges and ripping a huge hole in the side of the ship. She was slowly repaired, and moved to Toulon on 20 February 1942. She was scuttled there on 27 November 1942 to prevent her being captured by Germany.</p>					
	Builder	Laid Down	Launched	Completed	Left Service
Strasbourg	Penhoët and Loire (St. Nazaire)	25 November 1934	12 December 1936	December 1938	27 November 1942
<p>The <i>Strasbourg</i> was based in Brest with the <i>Dunkerque</i> at the outbreak of hostilities, where she operated with the 1ère Escadre de Ligne (see above). As the German pocket battleship <i>Admiral Graf Spee</i> was known to be operating in the South Atlantic she was transferred to Dakar in early October to form part of an Anglo-French force. She returned to Brest at the end of November when searches failed to find the German ship.</p> <p>In January 1940 she joined the <i>Dunkerque</i> for joint operations, moving with her to Mers el Kébir. She managed to escape from port during the British attack on 3 July, and made for Toulon. She was attacked by British aircraft on the way, shooting down one and damaging two, and arrived in Toulon on 4 July. She became the flagship of the French fleet, although operations were rare due to lack of fuel.</p> <p>She was disabled and scuttled in Toulon on 27 November 1942 to prevent her capture by Germany. The Italians subsequently stripped her, and later the hulk was refloated by the French. In 1944 she was bombed by the Americans whilst being used by the Germans to block the port's shipping channel, and had to be grounded.</p>					

SPECIFICATIONS

	Dunkerque	Strasbourg
Displacement		
- <i>Design</i>	30,264 tons	31,687 tons
- <i>Full Load</i>	34,884 tons	Unknown, but greater than <i>Dunkerque</i>
Length (OA)	215.14 m (705 ft 10 in)	215.50 m (707 ft 0 in)
Length (WL)	209.00 m (685 ft 8 in)	209.00 m (685 ft 8 in)
Beam	31.10 m (102 ft 0 in)	31.10 m (102 ft 0 in)
Draft (Design)	8.55 m (28 ft 1 in)	8.58 m (28 ft 1 in) at 30,280 tons
Draft (Full Load)	9.63 m (31 ft 7 in)	Unknown, but greater than <i>Dunkerque</i>
Block Coefficient	0.54	0.54
Propulsion	133,730 hp	No data, but very similar to <i>Dunkerque</i>
Speed	31 kts	No data, but probably less than <i>Dunkerque</i>
Weapons		
Main Guns	8 x 330 mm (13 in) guns in two quadruple mounts	8 x 330 mm (13 in) guns in two quadruple mounts
Other Guns	12 x 130 mm (5.1 in) in four quadruple mounts 10 x 37 mm (1.5 in) cannon in five twin mounts	12 x 130 mm (5.1 in) in four quadruple mounts 10 x 37 mm (1.5 in) cannon in five twin mounts
Magazine	32 x 0.52 in (13.2 mm) machineguns in eight quadruple mounts 800 rounds of 330 mm 7,865 rounds of 130 mm 20,200 rounds of 37 mm	32 x 0.52 in (13.2 mm) machineguns in eight quadruple mounts 800 rounds of 330 mm 7,865 rounds of 130 mm 20,200 rounds of 37 mm
Armour		
Side Belt	225 mm (8.9 in) tapering to 125 mm (0.6 in)	283 mm (11.1 in)
End Bulkheads	210 mm (8.3 in) forward 210 - 150 mm (8.3 - 5.9 in) aft	260 mm (10.2 in) forward 210 - 150 mm (8.3 - 5.9 in) aft
Magazine	125 mm (4.9 in) upper 40 mm (1.6 in) lower	125 mm (4.9 in) upper 40 mm (1.6 in) lower
Barbette	310 mm (12.2 in)	340 mm (13.4 in)
Turret	330 mm (13.0 in) face 250 mm (9.8 in) sides 345 mm (13.6 in) back	360 mm (14.2 in) face 250 mm (9.8 in) sides 355 mm (14.0 in) back
Deck	150 mm (5.9 in) top 115 mm (4.4 in) upper 40 mm (1.6 in) lower	160 mm (6.3 in) top 115 mm (4.4 in) upper 40 mm (1.6 in) lower
Miscellaneous		
Aircraft	3 x Loire 130 seaplanes (normally 2)	3 x Loire 130 seaplanes (normally 2)
Compliment	1,381	1,400 (approx)