

Background – Legendary Battleship:

The detailed design work for the *Bismarck* class battleships began in 1935. The Anglo-German Naval Treaty of 1935 allowed Germany to resume battleship construction, as long as they adhered to existing international agreements. In response to the new French ships of the *Richelieu* class, the design specifications were set for a standard displacement of 35,000 tons, eight 15in guns fitted in four twin turrets, a steam power plant capable of 30 knots, and protection to resist 15in shell hits from 20,000 to 30,000yds.

The 15in/47 was capable of ranging out to 40,000yds and was developed from the 15in/47 fitted to the *Bayern* class of World War One. Its performance was marred by a high muzzle velocity of 2,952ft/sec which resulted in relatively flatter shell trajectories and by the maximum 30° elevation provided by the turrets. This was adequate for the sea conditions expected in the North Sea, but not enough to allow for the heavier rolling experienced in the Atlantic.

As a result, while the first salvo was very accurate, accuracy diminished with subsequent salvos. Thanks to excellent stereoscopic rangefinders this wasn't as readily apparent as it might have been but at longer ranges accuracy would have suffered in comparison to other guns. The turrets were named from forward to aft: Anton, Bruno, Caesar, and Dora.

The secondary armament was the 5.9in gun mounted in twin turrets, three per side. This gun was only for engaging surface targets, although it could be used in a long-range barrage fire role against aircraft.

The twin 4.1in gun was the main AA weapon and eight were fitted. The mount was not enclosed and consequently suffered from electrical problems due to water coming aboard – the crews were also exposed to strafing attack, cold, and blast pressure when the main or secondary guns were fired.

Bismarck also carried eight twin 37mm mounts, 20 single 20mm, and 2 quad 20mm.

The main side belt was 12.6in thick and extended from Anton barbette forward to Dora barbette aft, from the middle platform deck to the battery deck. The belt thinned to 3.14in aft of Dora to the steering gear compartment aft, and 2.4in forward of Anton to the bow. Above the main side belt was another belt of 5.7in which extended from the battery deck to upper deck and was designed to resist cruiser and destroyer fire at the short ranges to be expected in the North Sea.

The weight of armour in the upper belt and the forward extension could have been better used to thicken the main side belt, the 'all or nothing' armour scheme which concentrated all armour amidships in a central citadel over the vital machinery, magazine, and communication spaces.

The thin upper belt was of no use against large calibre gunfire. The forward extension was in response to the damage suffered by the World War One battlecruiser *Lützow* which was lost at Jutland in 1916 after a shell hit in the unprotected forward portion of the ship resulted in uncontrollable flooding. This overlooked the actual cause of *Lützow's* demise which was the presence of large compartments outside of the main armoured citadel.

Horizontal protection was split over two decks: the upper deck was 1.97in thick above an armoured deck of 3.74in. The concept was that a shell striking the upper deck would initiate the fuse and cause it to burst before hitting the principal armoured deck. War experience would show that a single heavily armoured deck was much more effective at long ranges as a plunging shell could have easily pierced both decks; 1,000 pound bombs could also go right through both decks. All of the armour plate was manufactured by Krupp, which estimated that the armour was 25% more effective than similar thicknesses used in World War One.

As a matter of comparison, the *King George V* class had a main belt 15in thick and a single armoured deck of 6in thickness, resulting in a much better protected ship.

The anti-torpedo defence consisted of an outboard void space with an oil tank space inboard backed by a 2.1in torpedo bulkhead extending from Anton barbette to Dora barbette. This was a very sound system, the only issue being the reduced width of the outboard void space abreast the machinery spaces.

The propulsion plant consisted of 12 boilers in six compartments, and 3 turbines in three compartments abreast, one turbine set for each propeller shaft; twin rudders were fitted. Total designed horsepower was 138,000 SHP good for 29.5 knots; *Bismarck* attained 30.12 knots at an overload of 150,000 SHP on trials.

The hull was 90% welded and featured extensive sub-division in addition to the armour protection systems. The maximum draft had to be less than 33ft in order for the ship to use the Kiel Canal which resulted in a very wide beam of 118ft which happily made the ship a more stable gun platform. Launched with a straight bow, *Bismarck* was fitted with the flared and raked Atlantic bow after experience with the battlecruiser *Gneisenau*. The ship came out overweight with a standard displacement of 41,673 tons and a full load displacement of 50,129 tons which made *Bismarck* and her sister *Tirpitz* the heaviest dreadnoughts ever constructed in Europe.

Design work for *Bismarck* was completed in November 1935 and the ship was laid down at Blohm & Voss in Hamburg on July 1, 1936. She was launched on February 14, 1939 and commissioned on August 24, 1940.

After an extensive work-up period in the Baltic which lasted until May 1941, *Bismarck* was declared operational and readied for a commerce raiding sortie into the Atlantic, Operation Rheinübung ('*Rhine Exercise*') under the command of Admiral Lütjens. This would be her one and only operational cruise and would result in one of the most dramatic sea chases in history.

Bismarck left Gotenhafen (Gdynia) at 0200 on 19 May and rendezvoused with the heavy cruiser *Prinz Eugen* and destroyers *Hans Lody*, *Friedrich Eckholdt*, and *Z23* off Cape Arkona on the northern German Baltic coast later that day for passage through the Kattegat and Skagerrak en-route to the Atlantic. Reported by the Swedish cruiser *Gotland* and by coast watchers near Kristiansand on May 20, the German squadron slipped into Grimstadfjord at Bergen early on May 21. While there, her distinctive Baltic camouflage was painted out, leaving just the false bow wave. *Prinz Eugen* took the opportunity to re-fuel. Unknown to the Germans, a photo-reconnaissance Spitfire despatched to Bergen on the basis of the sighting reports photographed the German squadron there in mid-afternoon.

The German squadron was underway again by 2000 that same evening not giving *Bismarck* enough time to also refuel; the destroyers were detached early on May 22 to return to Trondheim. *Bismarck* and *Prinz Eugen* upped speed to 24 and then to 27 knots and headed for the Denmark Strait, foregoing a planned fueling rendezvous at sea with the tanker *Weissenburg*.

Upon receipt of the Spitfire's photos, Admiral Tovey (CinC Home Fleet) began to deploy his heavy forces. *HMS Hood*, *HMS Prince of Wales*, and 6 destroyers under the command of Vice Admiral Holland cleared the Hoxa boom in Scapa Flow by midnight on May 21 en-route to the southern exit of the Denmark Strait, now assessed as the most likely route the German ships would take to the open Atlantic.

On May 22 after visual confirmation from a very perilous RAF overflight of Grimstadfjord that the German squadron had left, Admiral Tovey sailed from Scapa Flow aboard *King George V* with the carrier *Victorious*, cruisers *Galatea*, *Hermione*, *Kenya*, *Aurora*, and 6 destroyers at 2215 that night, bound for the waters south of Iceland; the battlecruiser *Repulse* was ordered to rendezvous with him the next day.

At 1821 on May 23, the German ships encountered the pack ice extending eastwards from Greenland and altered course to the south-west to enter the Denmark Strait. At 1922, the cruiser *HMS Suffolk* on patrol in the northern reaches of the strait made contact with *Bismarck* and *Prinz Eugen*; an hour later the cruiser *HMS Norfolk* also made contact, coming under accurate fire after emerging from a fog bank less than 10,000yds from the German squadron. The blast from her own guns disabled *Bismarck's* forward radar; she dropped behind *Prinz Eugen* to allow her to lead with her still operable radar; *Norfolk* was not hit.

The British cruisers maintained contact with the German ships using the radar aboard *Suffolk*; contact was briefly lost just after midnight for two hours but was regained by 0230 on May 24. The German ships proceeded steadily on their course for the Atlantic at 27 knots, hoping to shake off their pursuers once clear of the strait. Unknown to the Germans, *Hood* and *Prince of Wales* were moving to intercept, being less than 100 miles distant at midnight and ideally placed to intercept at a right angle to the German's course.

The two hour loss of contact had the unfortunate result of causing Admiral Holland aboard *Hood* to order a course change to due north in case the German ships had turned back for Norway. When contact was regained, *Hood* and *Prince of Wales* were out of position and the new intercept course placed them nearly abeam the speeding German ships and only gradually overhauling them on a nearly parallel course.

At 0535 on the morning of May 24, *Prinz Eugen* picked up the sounds of heavy ships on her hydrophones and ten minutes later smoke was sighted on the port beam as *Hood* and *Prince of Wales* turned sharply towards the German ships in order to attack. At 0552 *HMS Hood* opened fire on the leading *Prinz Eugen*, followed a minute later by *Prince of Wales* on the trailing *Bismarck*. The German ships held on for several minutes before *Prinz Eugen* opened at 0555 followed by *Bismarck* at 0556; both ships targeting *HMS Hood*.

By then, *Bismarck* had already been hit once by *Prince of Wales* and was hit twice more in the next four minutes. *Prinz Eugen* scored a hit on *Hood's* boat deck with her second salvo at 0557 which detonated amongst the ready-use 4in, UP, and pom-pom ammunition, starting a very bad fire. In contrast, *Bismarck* made no hits with her first 4 salvos. *Hood* switched targets to *Bismarck* but had made no hits, the exploding ammunition continuing to feed the raging boat deck fire.

Bismarck's lack of success changed radically with her fifth salvo at 0600, at least one shell of which penetrated to *Hood's* after 4in powder magazine and detonated. This set off the powder charges stowed there and the magazine exploded violently, venting into the adjacent 15in powder magazine which erupted in a massive explosion sending flame and smoke hundreds of feet into the air through which large parts of the ship could be seen hurtling skyward: the after 15in turrets, mainmast, boats, and thousands of smaller pieces. Her back broken at a speed approaching 30 knots, *HMS Hood* was literally blown to pieces; she was totally gone in less than two minutes leaving behind a towering column of smoke and only 3 survivors from a ship's company of over 1,400.

To the horrified observers aboard *Prince of Wales* and the stunned onlookers aboard the German ships it was a scene from Armageddon, a frightening reminder of how frail the seemingly invincible battleships really were. The world's largest and most famous warship reduced to fragments in less than 10 minutes of battle.

With *Hood* gone, both *Bismarck* and *Prinz Eugen* were free to switch targets to the *Prince of Wales*, now frantically manoeuvring to avoid *Hood's* wreckage. *Prince of Wales* was hit by three 15in and four 8in shells in the next 11 minutes before dis-engaging behind a smoke screen at 0613 with heavy damage and 'A' and 'Y' turrets jammed. The German ships ceased fire and resumed their southwesterly course.

Much is made of *Bismarck's* accurate gunfire in this battle, but *Prince of Wales* was actually the better shooting ship. Brand new and still working up with gun turrets not fully functional, she scored her first hit after only 3 minutes, the fully worked-up and superbly trained crew of *Bismarck* took 4 minutes to score their first hit on *Hood*. *Prince of Wales* fired a total of 55 shells with 3 hits, a shooting percentage of 5.6%; *Bismarck* obtained 4 definite hits from 93 shells fired for 4.3%. It is also interesting to note that only one of the 15in hits on *Prince of Wales* detonated (and only partially). *HMS Hood* was extremely unlucky to be hit in a magazine space by a 15in shell that actually detonated – a combined very low order of probability and ironically about the same assessed probability (2%) that a torpedo hit would manage to disable *Bismarck's* rudders – exactly what would happen two days hence.

Prinz Eugen had suffered no damage in the brief fight; *Bismarck* had been hit three times by *Prince of Wales*. The first hit went through the forecandle just above the waterline without detonating, but leaving large holes which caused extensive flooding of the two foremost compartments and damaging the fuel manifolds isolating 1,000 tons of fuel oil. The second hit was on one of the boats stowed above the amidships hangar, destroying it and damaging the catapult mechanism before carrying on without exploding. The third was a diving shell that fell short and penetrated amidships under the armour belt and exploded against the torpedo bulkhead, causing flooding in the wing compartments, the forward port side generator and power station compartment and cracked the bulkhead into No.2 port boiler room causing minor flooding. Speed had to be reduced to due to the flooding forward. Of greater concern, after accounting for fuel already burned and the suddenly unavailable fuel in the forward tanks, available fuel was down to 3,300 tons; enough for 2,000 miles at 30 knots. Not refueling in Norway suddenly loomed large as a major tactical error.

Still being trailed by *Suffolk* and *Norfolk* and the damaged *Prince of Wales*, Admiral Lütjens decided to detach *Prinz Eugen* to continue the raiding mission, while *Bismarck* made for France for repair; a decision no doubt made more imperative due to the fuel situation. *Prinz Eugen* successfully slipped away undetected at 1814 that evening.

Later that evening at 2340 *Bismarck* was hit on the starboard side amidships by a torpedo delivered from a Swordfish flying from *HMS Victorious*. The torpedo detonated on the main armour belt and likely displaced it inboard somewhat, one crew member was killed. Shock enlarged the cracks in the port boiler room and it gradually flooded reducing speed to 20 knots. While taking evasive action, gunfire

was exchanged again with *Prince of Wales* when the two ships came within visual range of each other, no damage was done to either ship.

Very early in the morning of May 25, *Bismarck* broke contact by turning sharply to the west and making a large circle to the east and crossing behind her pursuers before settling on a course at 20 knots directly for France. By 0930 that morning 46 British ships were in the hunt frantically trying to regain contact but to no avail. *Bismarck* had escaped.

All that day and into the next, *Bismarck* made good progress towards France while the heavy units of the British fleet fell further behind. In the afternoon of May 25, several hundred tons of fuel was recovered from the forward tanks, giving a valuable reserve in case of further action.

At 1030 on the morning of May 26, a Catalina from Northern Ireland spotted *Bismarck* 690 miles north-west of Brest, France. All hope of stopping her lay with the aircraft carrier *HMS Ark Royal*, currently to the northwest of *Bismarck*. At 1154 a Swordfish from *Ark Royal* succeeded in making contact with the fleeing *Bismarck*; the cruiser *HMS Sheffield* was detached from *Ark Royal's* screen to close with *Bismarck* and resume shadowing. An airstrike of 15 Swordfish was launched from *Ark Royal* at 1500 but due to a mix-up, the aircraft actually attacked *Sheffield* instead, fortunately no hits were scored. More importantly, the magnetic pistols fitted to the torpedo warheads malfunctioned and exploded when the torpedoes hit the water.

A second strike of 15 Swordfish, with contact pistols on the torpedoes this time, was launched in appalling conditions from *Ark Royal* at 2000; it would be the last chance to slow the German battleship. At 2047 two of the Swordfish scored hits. The first was amidships on the port side, the torpedo defense system limited damage to the port propeller shaft alley and minor flooding in the port engine room. The second torpedo detonated under the after steering compartment, flooding both steering compartments, wrecking the port coupling to the steering gear and jamming the rudders to port (the 2% probability hit). Despite frantic attempts, the damage was not repairable. Eventually the starboard rudder was disengaged but it was not possible to free the port rudder. *Bismarck* was helplessly forced into a northwesterly course, straight at the pursuing British heavy ships.

In the immediate aftermath of the torpedo hits, *HMS Sheffield* was sighted and taken under fire; three of her crew were killed by splinters before the cruiser was able to escape. At 2115 Admiral Lütjens radioed that the ship was maneuverable and that they would fight to the last shell. From 2238 until 0640 the next morning *Bismarck* came under attack by the destroyers *Cossack*, *Maori*, *Piorun*, *Sikh*, and *Zulu* who collectively fired sixteen torpedoes with no hits. Their dogged pursuit kept *Bismarck's* crew awake through the night and contributed to the sense of hopelessness that now swept the ship.

At 0815 *HMS King George V* and *HMS Rodney* were in sight off the port bow. Both British battleships opened fire at 0847 from 16,900 yards, *Bismarck* replied two minutes later obtaining a straddle on *Rodney*. That was as good as she could do, unable to maneuver or steer a reliable course her gunnery accuracy quickly fell off and she was pounded to wreckage by the British battleships. *HMS Norfolk* joined in and knocked out the forward fire control director putting an end to centralized fire control.

At 0920 both forward turrets were disabled by hits, all main battery fire ceased at 0931. At ranges down to 2,600 yards the British battleships continued to fire, but by now all they were doing was 're-arranging the wreckage'. At such close ranges, the British shells were not able to readily penetrate the lower armour belt due to their flat trajectory or have enough of a striking angle to penetrate the armoured decks, but the upper armour belt was pulverized with major damage to the superstructure. Approximately 300 to 400 shells hit out of the 2,876 total fired.

Aboard *Bismarck*, orders to scuttle were given at 1000. *Rodney* ceased fire at 1014, *King George V* at 1022; *Bismarck* was by then aflame from stem to stern. The cruiser *HMS Dorsetshire* fired two torpedoes into the wallowing wreck at 1020, and a third at 1030. *Bismarck's* stern broke off and she capsized to port and sank at 1036, ending her fighting career only 6 days after she left Norway; only 115 crew members were saved from a total crew of close to 2,100. *Prinz Eugen* arrived in Brest on June 1 having accomplished nothing on her short raiding cruise.

Bismarck's wreck was found by Dr. Robert Ballard in 15,700 feet of water in June 1989. The ship had landed right-side up on the slope of an underwater volcano and slid wildly downhill before coming to rest. The main turrets fell out of the ship as she capsized and the superstructure is mostly gone, but the hull is remarkably intact although bearing the scars of the many hits suffered in the final battle. It is a final irony that the four ships that participated in the Battle of the Denmark Strait still exist, *Hood* broken apart and strewn across the ocean floor at the battle site, *Bismarck* sitting upright south of Ireland and west of France, *Prinz Eugen* upside down at Kwajalein Atoll, and *Prince of Wales* upside down off the coast of Malaya.

The Kit:

This features *Bismarck* as she appeared in May 1941 during Operation Rheinübung.

Packaging:

The kit comes in a large well-constructed box featuring a painting of *Bismarck* firing a broadside against *HMS Prince of Wales* and *HMS Hood* in the Denmark Strait on May 24, 1941. On the side of the box are pictures of the kits of *HMS Lance* and the upcoming *Königsberg*.

Each of the sprues is sealed in plastic bags. There is also a large full colour card featuring the box art on one side and a ship's history with general characteristics on the reverse.

The kit comprises 609 parts on 40 sprues and a single photo-etch piece; all plastic parts are moulded in medium grey. The upper hull, lower hull, waterline plate, main deck, funnel, forward tower decks, and after superstructure decks are separate pieces not attached to any sprue.



---- Box Art ----



----- Box Contents -----



German Battleship Bismarck 1941
 1/700 FH 1132
 1941年10月20日、北緯42度30分、東経15度10分、大西洋、北緯42度30分、東経15度10分

After the signing of the British-German Naval Agreement in 1935, the German Kriegsmarine began to expand on a large scale. A new generation of battleships was named after Chancellor Otto von Bismarck, Germany's most famous politician of the 19th century.

The keel was laid on July 1, 1936 at the Blohm & Voess shipyard in Hamburg, and Bismarck was launched on February 14, 1939. It then began sea trials on August 24, 1940. Due to the limited development of large warships in Germany after World War I, Bismarck followed the design of German battleships of World War I. It also incorporated new technologies of the 1930s and 1940s. There were obvious differences between the battleships built during those periods.

In May of 1941, Bismarck joined Prinz Eugen and began operations of the Rhein Übung, with the goal of attacking British sea traffic. The news of Bismarck's attack attracted the attention of the Royal Navy. On May 24, the battleship HMS Hood and the battleship HMS Prince of Wales engaged the German fleet in the Danish Strait. Hood was sunk in the battle. Prince of Wales was damaged, and Bismarck was hit in the fuel tanks by fire from Prince of Wales, causing seawater to rush in and leaving a trail of oil. The Battle of the Denmark Strait shocked the United Kingdom. The Royal Navy mobilized a large number of warships to pursue the Bismarck. On May 25, Prinz Eugen left the formation to go to France. On May 26, Bismarck was attacked by Flanery Swedish biplane torpedo bombers of the aircraft carrier HMS Ark Royal, and one of the torpedoes damaged its port rudder, causing the Bismarck to lose directional control. On May 27, the UK main fleet arrived, including the battleship King George V and the battleship HMS Rodney, causing heavy damage to Bismarck. At 10:30 on the same day, the Bismarck was sunk in the waters west of Brace. Over two thousand people perished, including Commander L. J. Jans and Captain Lindemann. There were only 114 survivors.

The sinking of the Bismarck greatly eroded the confidence of the German Kriegsmarine, and also proved the huge influence of the air supremacy over sea power.

Main Characteristics
 Standard Displacement: 41,700 tons
 Max Displacement: 50,300 tons
 Length: 250.55 m
 Beam: 36 m
 Speed: 30.1 kts (55.685 km/h)
 Range: 8525 nmi/19 kts (15788.3 km; 35.15 km/h)
 Complement: 2092

Armament:
 4 X Dual 38 cm (15 in) SK C/34 Naval Guns
 6 X Dual 15 cm (5.9 in) SK C/28 Naval Guns
 8 X Dual 10.5cm/65 SK C/33 Multi-Purpose Guns
 6 X Dual 3.7cm/65 SK C/30 Anti-Aircraft Guns
 2 X Quadruple 2cm/65 C/38 Guns
 10 X 2cm/65 C/30 Guns
 2 X 2cm/65 Flak 30 Guns

FH 1132 - 005

1935年にイギリスと英独海軍協定が結ばれた後、ドイツ海軍は大規模艦隊拡張が始まりました。新世代の戦艦建造は十九世紀最も有名なドイツ政治家オットー・フォン・ビスマルクの名に基づきネーミングされました。

ビスマルクは1936年7月1日にハンブルクの造船会社ブローム・ウント・フォス社で起工、1939年2月14日に竣工、1940年8月に海試しました。ドイツ海軍は第一次世界大戦の後に大型戦艦の開発を制限され、ビスマルクは第一次世界大戦中のドイツ戦艦設計のスタイルを踏襲しました。しかし同時に1930年代から40年代の新技術に加え、世界各國の間に製造された戦艦とは明らかに差別が有りました。

1941年5月、イギリスの艦隊を断つため、ビスマルクは重巡洋艦プリンツ・オイゲンを加え、ライン演習作戦に参加しました。ビスマルクの出撃行動はイギリス海軍の注意を引きました。5月24日、海軍総司令官イギリス海軍艦隊プリンス・オブ・ウェールズおよび重巡洋艦プリンツ・オイゲンとドイツ海軍の戦艦を巡り、追撃戦を繰り返しました。艦隊中一つは撃沈され、プリンス・オブ・ウェールズは損傷しました。そしてビスマルクは燃料タンクプリンツ・オブ・ウェールズに撃たれ、海水に満たされ、自立的行動が失われました。イギリス海軍はデンマーク海峡海戦に優勢を受け、多数の戦艦を集め、ビスマルクを捕獲しました。5月25日、プリンツ・オイゲン艦隊から離れて、フランスに向いました。5月26日、ビスマルクはイギリス空母アーゴイルから発射された5つのソウーフッシュ魚雷に攻撃され、魚雷の一つが右舷後部一命中し、この重大な攻撃の影響でビスマルクはコントロールを失うこととなりました。5月27日、戦艦キング・ジョージと重巡洋艦ロドニーを合わせたイギリス海軍主力艦隊が到着し、ビスマルクに追いつき撃沈を遂げました。その日の10時30分、ビスマルクは北緯42度30分、東経15度の海域で沈没しました。艦隊司令官ルンデット・リュウネンおよび艦長エーリク・ストロムデーンを含む、二千以上の戦死者を出し、僅か百人が救助されました。

ビスマルクの沈没はドイツ海軍の作戦に大きな衝撃を与え、ドイツ海軍は自信を無くしました。それと同時に制空権をもつことは制海権に比べて大きな影響を与えることが証明しました。

性能諸元
 基準排水量: 41,700トン
 満載排水量: 50,300トン
 全長: 250.55メートル
 最大吃水: 36メートル
 最高速度: 30.1ノット
 持久性: 8525海里/19ノット
 乗員: 2092名

兵装:
 38cm(52口径)連装砲4基
 15cm(55口径)連装砲6基
 10.5cm(65口径)連装高角砲8基
 3.7cm(65口径)連装機銃6基
 20mm(65口径)4連装機銃2基
 20mm(65口径)10連装機銃10基
 20mm(65口径)Flak 30連装機銃2基

1935年《英独海軍協定》簽署後、德國海軍開始大規模擴充，新代的戰列艦皆以十九世紀德國最著名的政治家俾斯麥命名。

軍艦于1936年7月1日在漢堡的布洛姆—福斯造船廠鋪設龍骨，1939年2月14日下水，1940年8月24日進入海上試驗。由於一戰後德國的大艦建造開發受到限制，俾斯麥號在艦體設計上沿襲了從前一戰期間德國戰列艦設計的風格，同時也加入了二十世紀三四十年代的新科技，與世界各國在同時期建造的戰列艦有明顯的區別。

1941年5月，俾斯麥號戰列艦應合擊挪威王儲維廷洋艦，開始了代號「萊茵演習」的行動，目標是封鎖英艦北上交通並進行打擊。俾斯麥號出擊的消息吸引了英國皇家海軍的注意。5月24日，負責圍擊任務的皇家海軍重巡洋艦「普里恩」和「歐根」號戰列艦在丹麥海峽遭遇德國艦隊。在激烈的戰鬥中「普里恩」號被擊沉，威爾士親王號被擊傷。俾斯麥號在威爾士親王號擊中油艙，導致海水灌入，留下明顯的航迹。

丹麥海峽的戰鬥令英國大為震驚，皇家海軍調集了大批戰艦圍擊俾斯麥號。5月25日，戰艦「羅德尼」號跟蹤俾斯麥號前往法國。5月26日，俾斯麥號被英國皇家海軍的航空母艦「阿戈爾」號發射的5枚魚雷擊中，其中一枚魚雷將船尾的動力艙擊中，這次重創的影響導致俾斯麥號失去控制。5月27日，皇家海軍主力艦隊趕到，包括英王喬治五世號戰列艦與羅德尼號戰列艦的圍擊對俾斯麥號進行了毀滅性的打擊。當天10時30分，俾斯麥號在北緯42度30分、東經15度的海域沉沒，艦隊司令官特勞特曼及艦長林德曼以下千餘人戰死，僅有一百餘人幸存。

俾斯麥號的沉沒極大打擊了德國海軍海洋作戰的信心，也證明了制空權對制海權的巨大影響。

主要性能:
 標準排水量: 41700噸
 満載排水量: 50300噸
 全長: 250.55米
 寬: 36米
 最大吃水: 30.1節
 續航力: 8525海里/19節
 定員: 2092人

武備:
 主砲: 38cm/52 SK C/34連裝砲 X4
 副砲: 15cm/55 SK C/28連裝砲 X6
 副砲: 10.5cm/65 SK C/33 中兩用砲 X8
 副砲: 3.7cm/65 SK C/30 防空砲 X6
 四聯裝: 2cm/65 C/38 機銃 X2
 單裝: 2cm/65 C/30 機銃 X10
 單裝: 2cm/65 Flak 30 機銃 X2



1/700 FH 1132

---- Front and Rear of included card ----

Hull:

The one piece hull is 359mm long which scales out perfectly to the actual overall length of 823.5ft. A lower hull and a waterline base plate and weight are supplied giving the modeller the option to build either a full hull or a waterline version. There are no stands included so those wishing to build the full hull version will need to come up with some arrangement to display the completed model.

The lower hull itself has finely molded bilge keels, propeller skegs, boiler room intakes with screens, and the horseshoe shaped S-Gerät hydrophone array. Rudders and propellers are separate pieces. Raised tabs will ensure a precise fit to the upper hull.

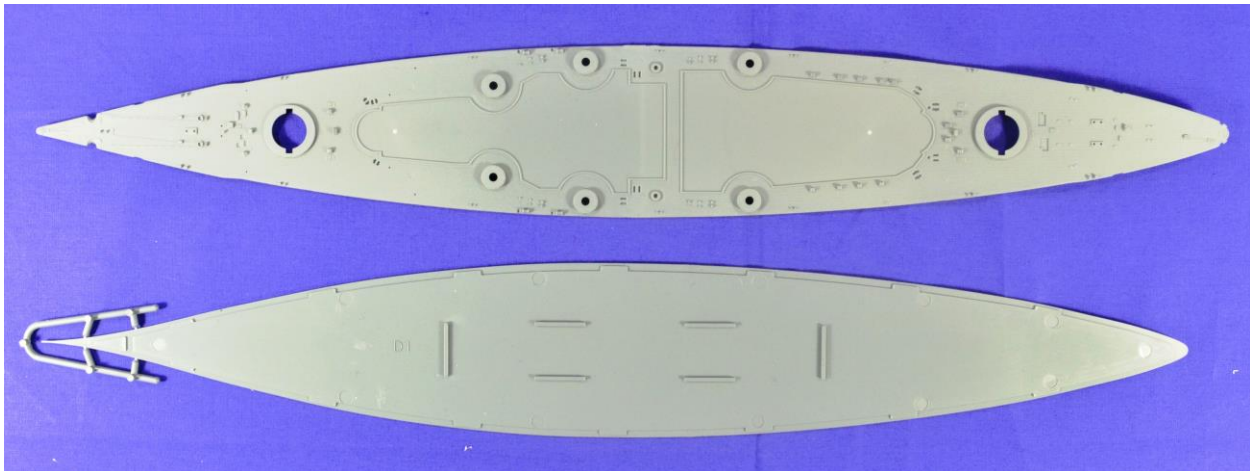
The upper hull has the very pronounced flare and sheer of the Atlantic bow, fairleads, and the cut-out for the stern anchor on the port side. The side armour belt and the anchor hawse openings are crisply defined and the portholes all have rigols ('eyebrows').



----- Upper and lower hulls -----

Main Deck:

The main deck is one large piece featuring impressive detail with individual deck planks, cable reels, boat skids, anchor chains, and hatches. The breakwaters, capstans, and larger hatches are separate pieces. The deck and waterline plate are enclosed with cardboard to protect the extreme ends of each piece.

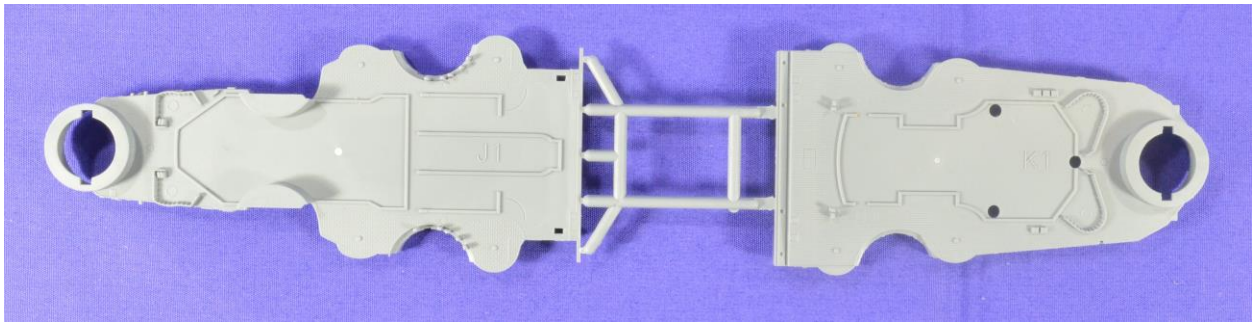


----- Main deck and waterline hull plate -----

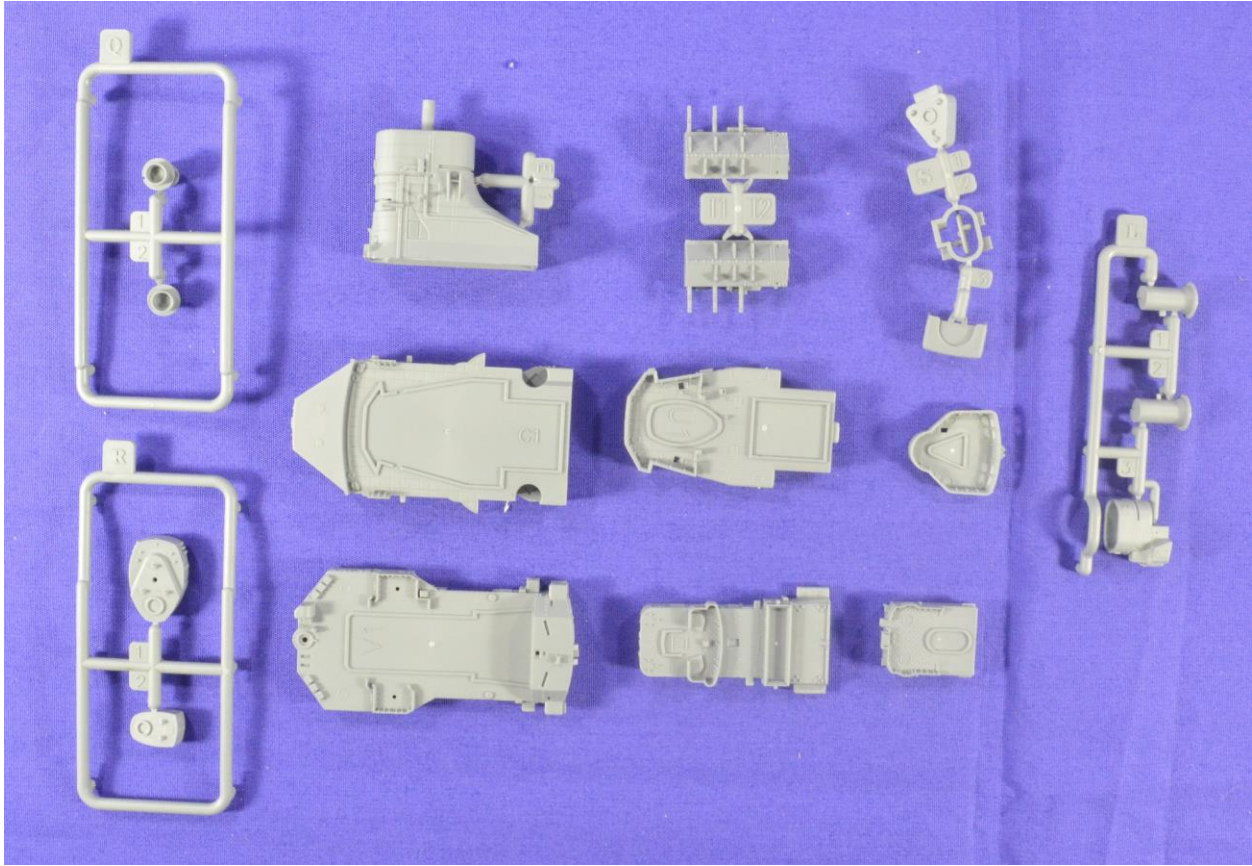
Superstructure:

Six decks make up the forward superstructure; three make up the after superstructure. Six of these deck pieces are not attached to any sprue preventing them from suffering any damage from sprue cutters. The bulkheads are moulded with the decks, greatly simplifying assembly. Each deck piece has immense moulded-in detail: deck planks, linoleum decking, non-skid surfaces, lockers, portholes, hatches, ladders, intake vents, bulwarks, bracing on the undersides, slots and raised edges for attaching other pieces. The single piece funnel is hollow and features vents, ladders, and pipes; the cap is a separate piece which features a grill and drilled out exhausts around its rim.

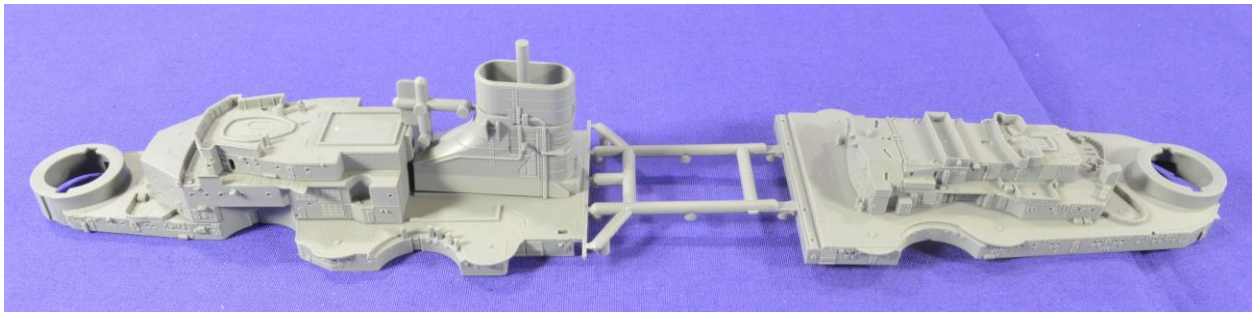
Each deck piece has many smaller fittings; the main bridge deck has 18 pieces. The forward AA directors with the characteristic domes are composed of 4 pieces each; the pair on the after superstructure do not have the domed covers but feature the open rangefinders instead. Each hangar has boat chocks on the roof and a door. The top of the armoured conning tower has raised bolt heads.



----- *Lowermost forward and after superstructure decks* -----



----- Superstructure decks, conning tower roof, hangars, AA directors -----



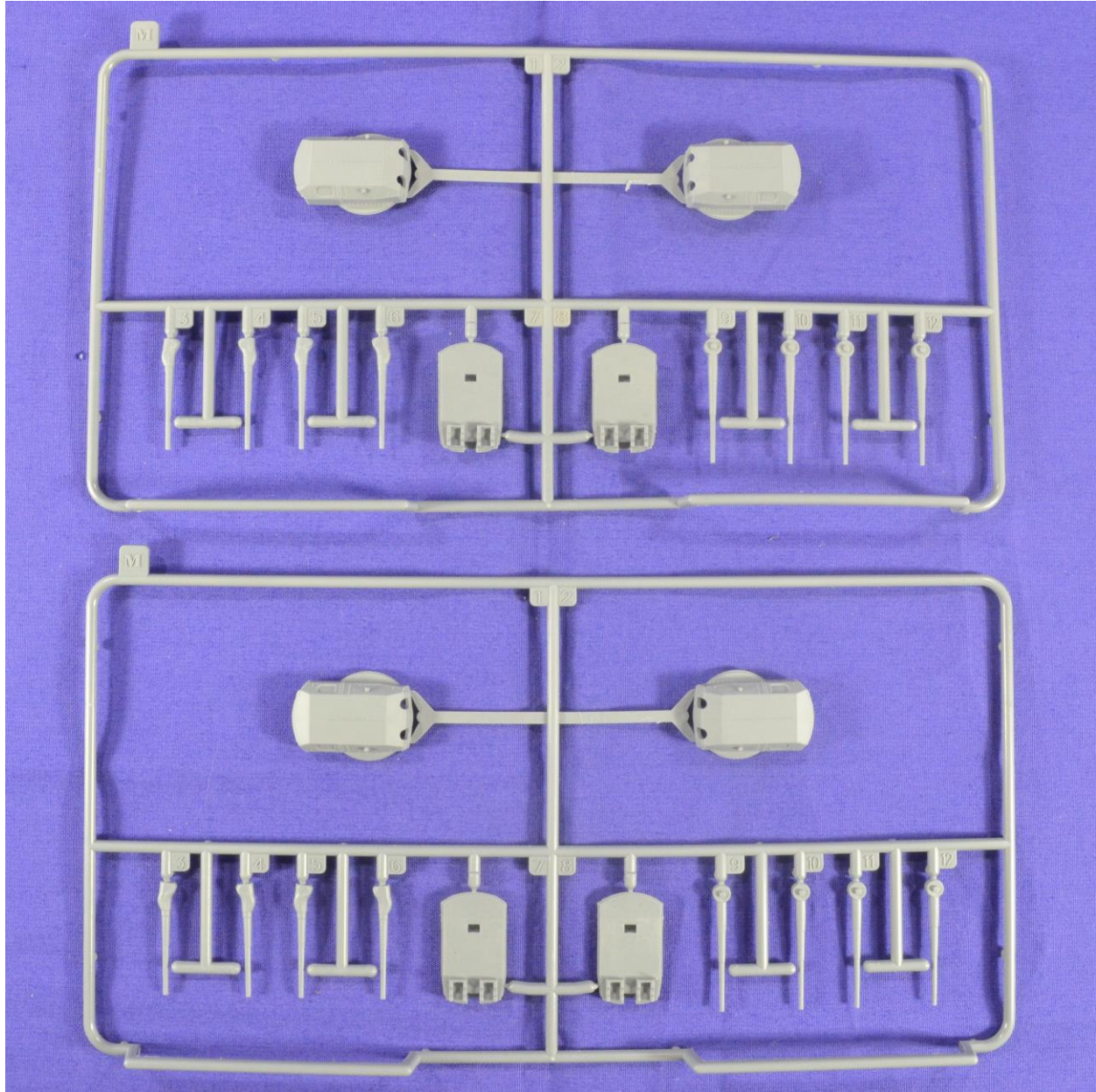
----- Dry-fitting of first two deck levels, showing the amount of detail present -----

Weapons:

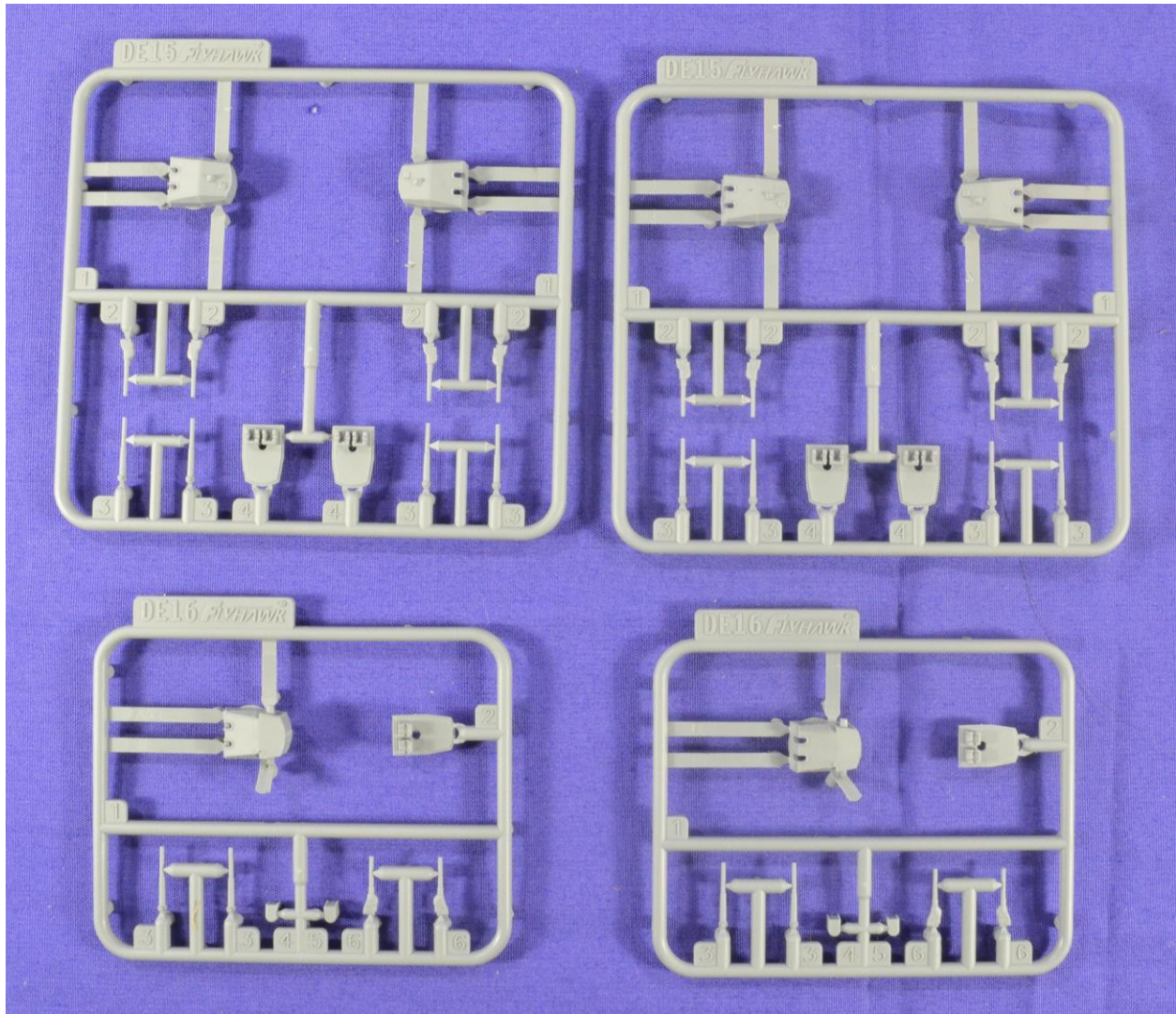
Each 15in turret consists of four pieces: floor, gun-house, and rangefinder extensions; Bruno turret does not have the rangefinder pieces. Each turret has raised rivets and ladders, and there is a choice of gun barrels – with or without blast bags. Each type of gun barrel has a drilled out muzzle.

The 5.9in turrets are also composed of four pieces: floor, gun-house, and rangefinder extensions; four of the turrets do not have the rangefinder pieces. Each turret also has raised detail and a choice of gun barrels with or without blast bags, the muzzles are drilled out on both types of gun barrel.

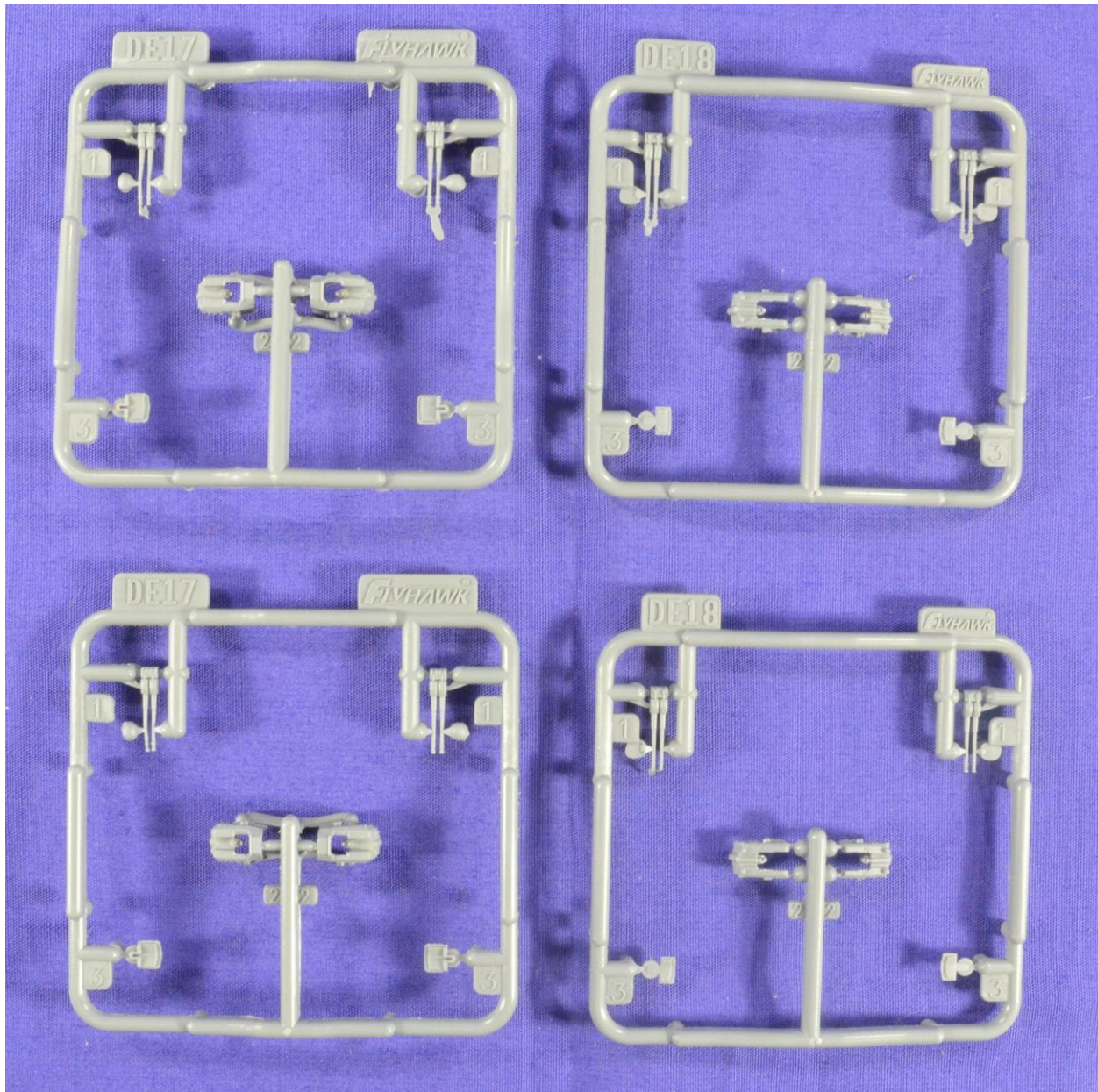
The 4.1in AA guns are each made up of three pieces – gun barrels, mounting, and floor. There are also twin 37mm guns (3 parts), quad 20mm guns (3 parts), and single 20mm guns, each featuring raised detail.



----- 15in turrets and gun barrels -----



----- 5.9in turrets and gun barrels -----



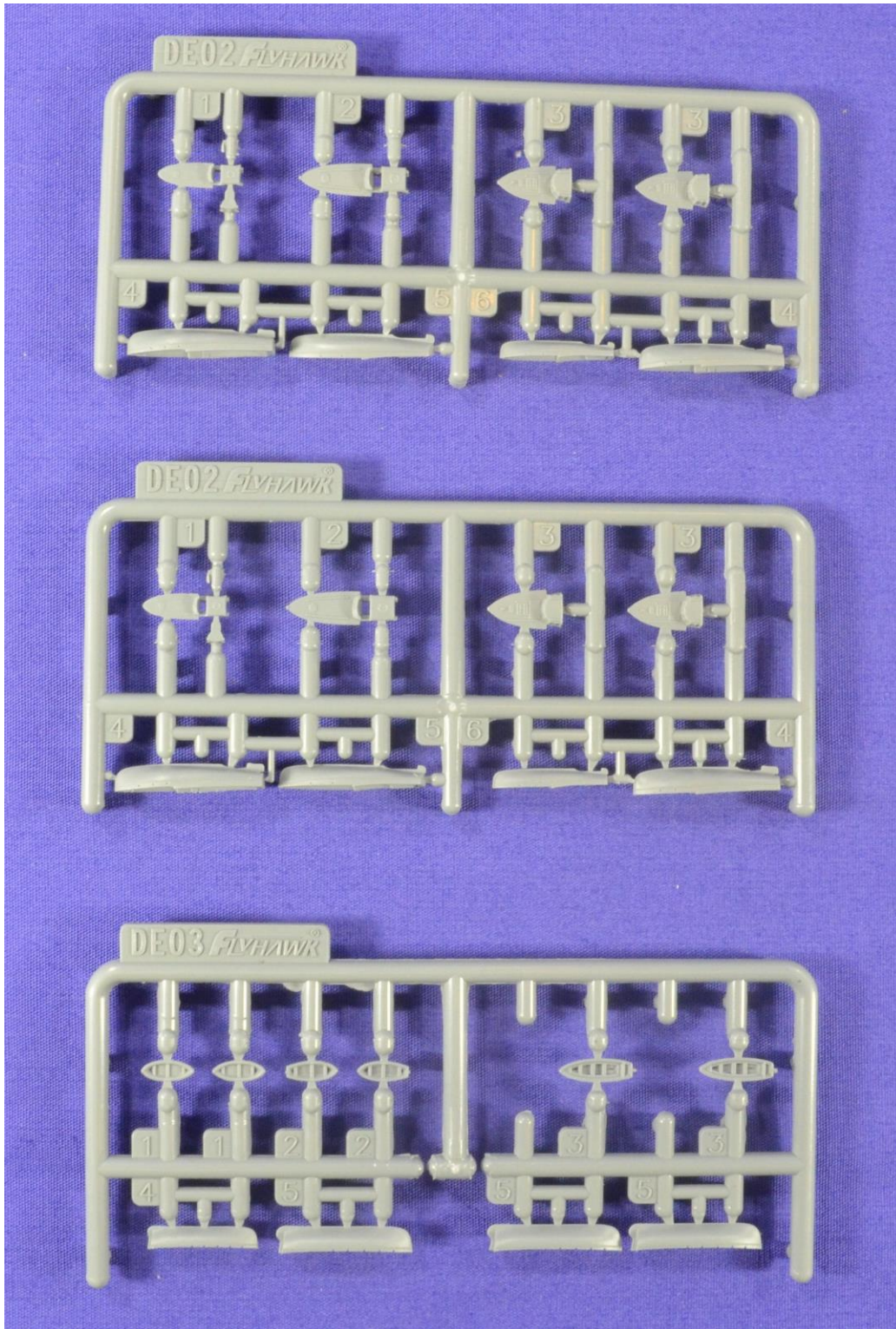
----- 4.1in AA guns -----

Boats and fittings:

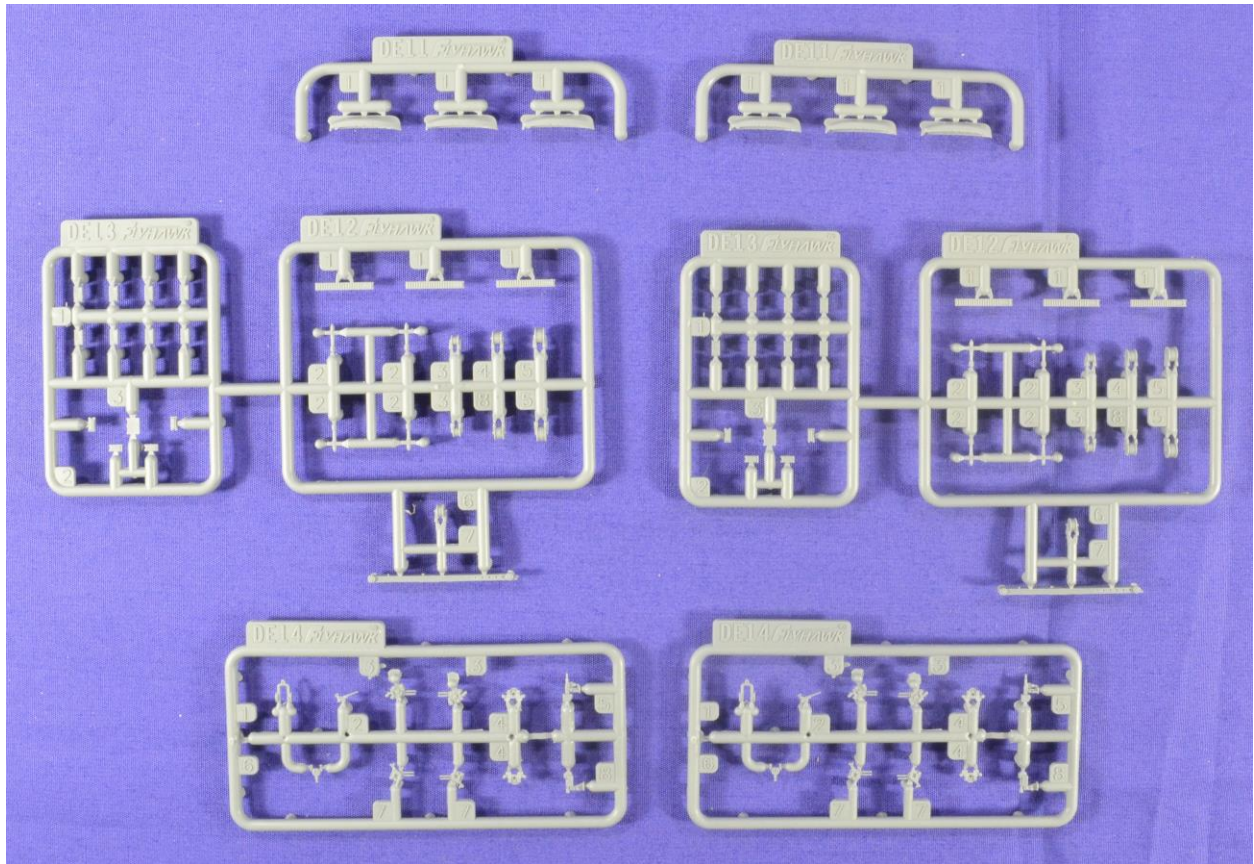
There are seven open boats and six motor launches, each one features deck planks. The large motor launches consist of two pieces.

There are many smaller fittings, every piece of which is incredibly detailed. The capstans have separate tops, paravanes have detailed bodies, ammunition lockers have doors and hinges, cable reels have wound cable, the large amidships crane are made from six pieces, the radar arrays have detailed fronts, main directors have raised detail, searchlights have shutters, the searchlight covers have raised ridges,

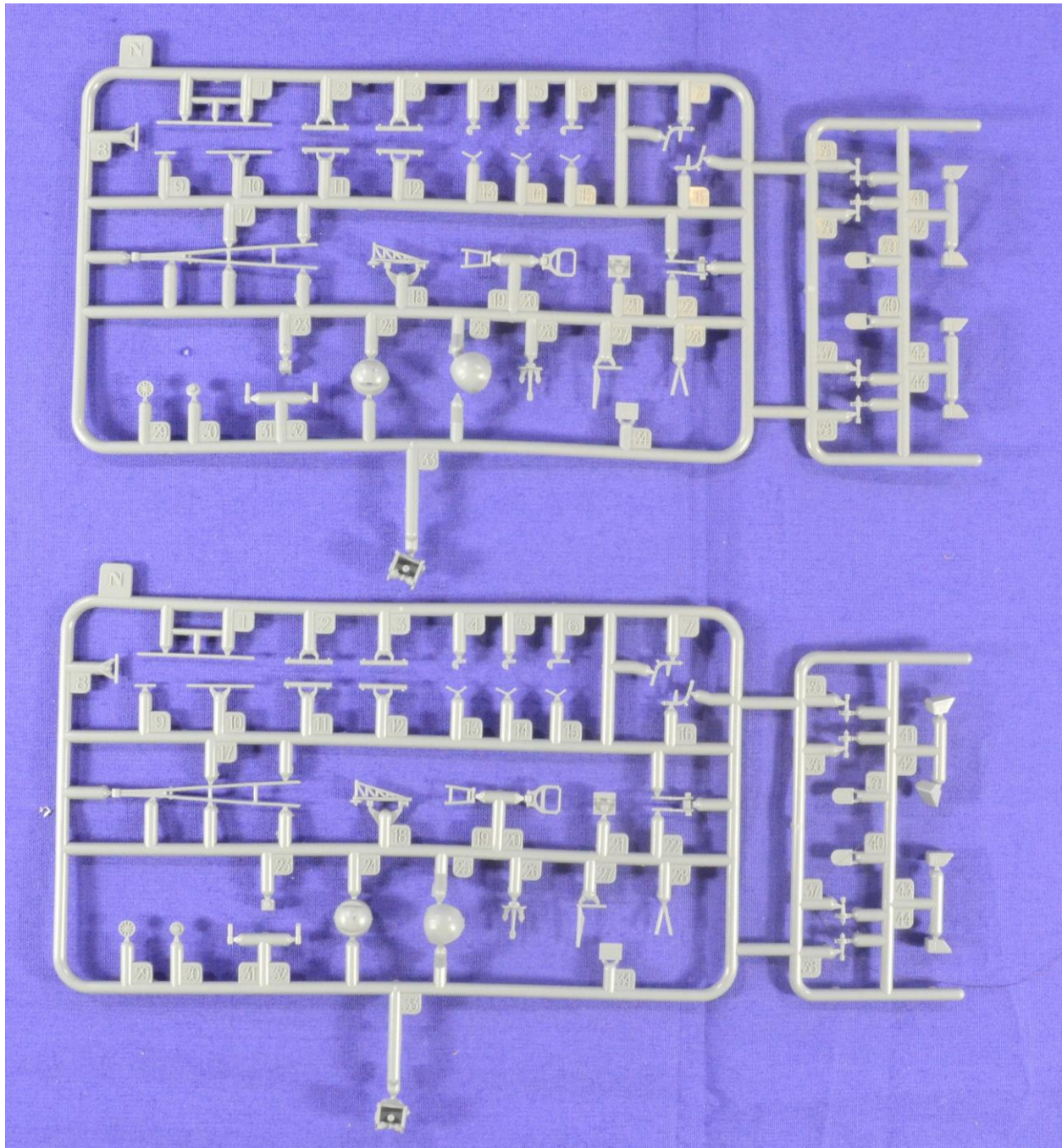
and there are lattice boat cranes fitted to the rear of the funnel. The catapult is made from two pieces both with raised detail and mechanism wheels.



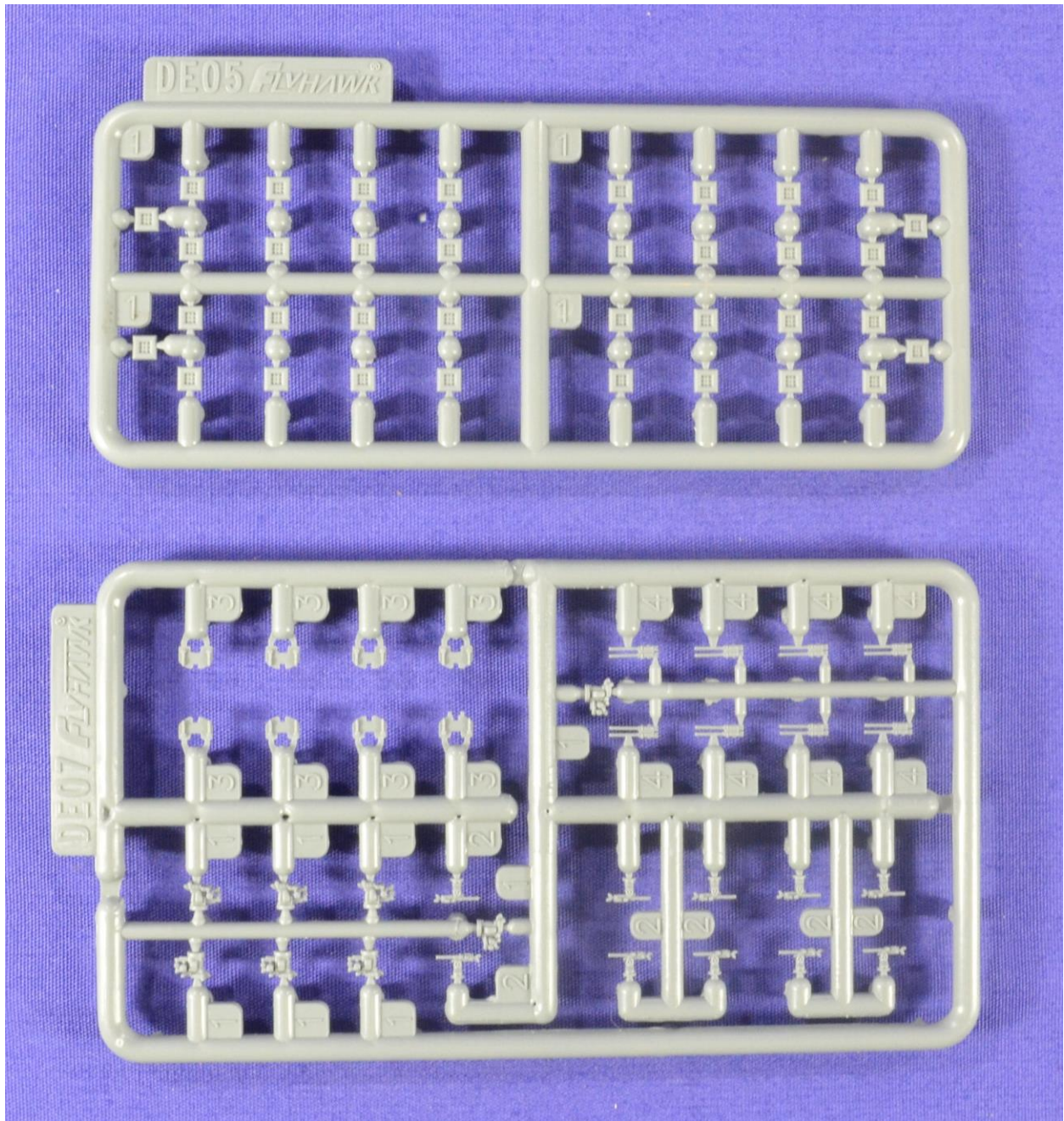
----- Boats -----



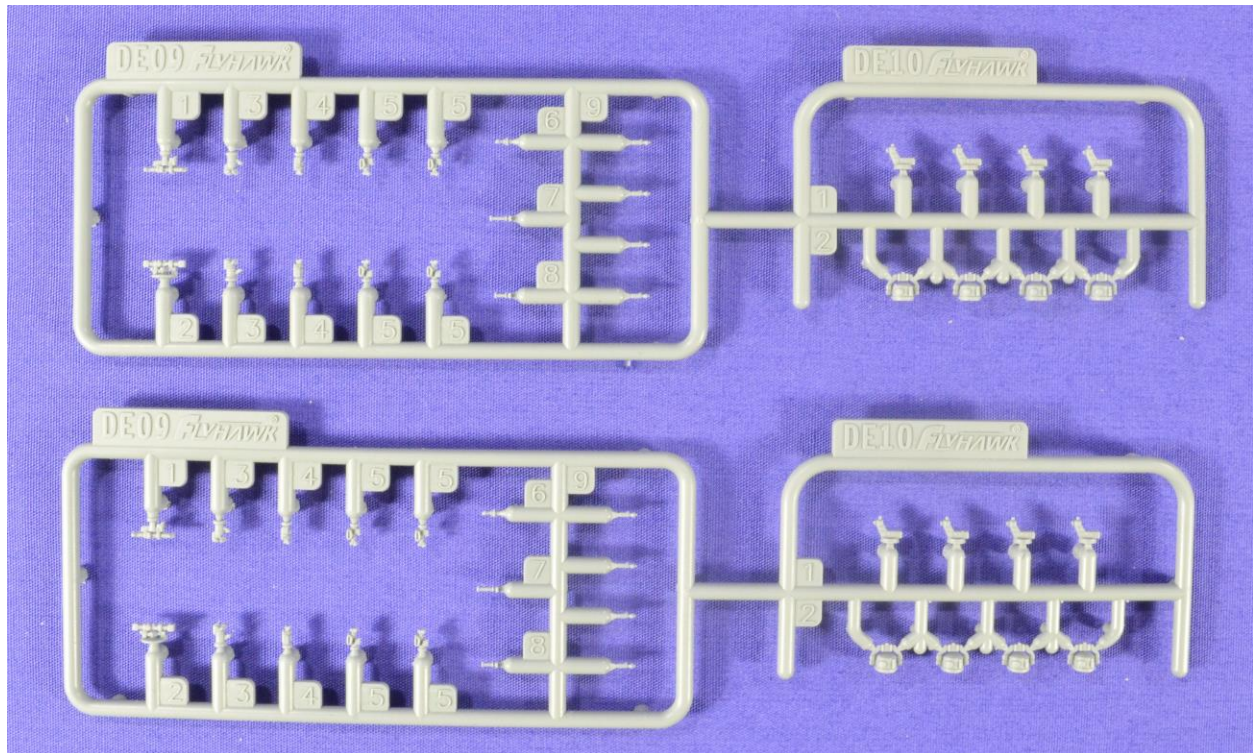
----- Boats, light AA, cable reels, catapult, and fittings -----



----- Crane booms, cranes, searchlight covers, anchors, and fittings -----



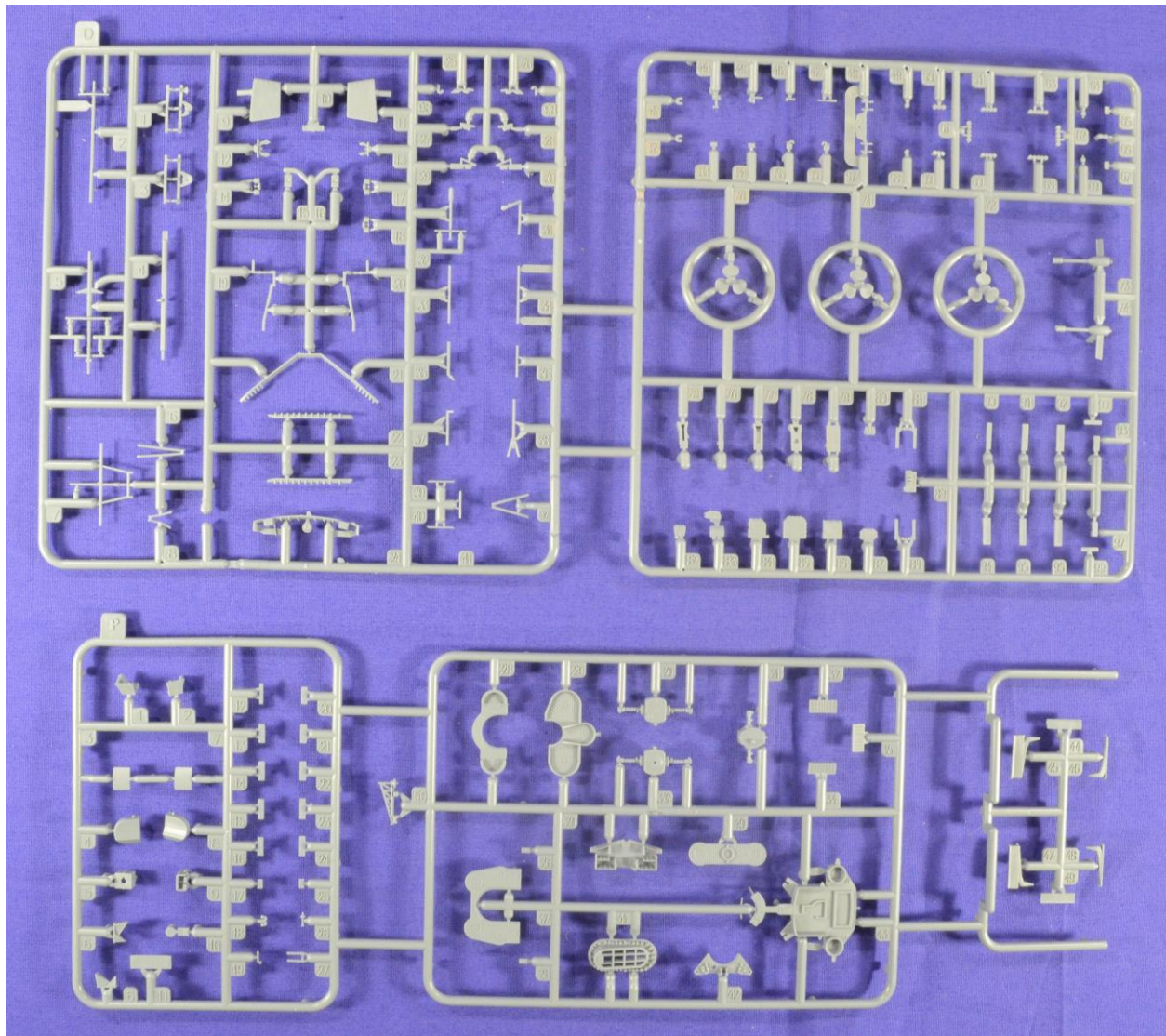
----- Rafts, cable reels, light AA -----



-----Searchlights and directors -----

Masts:

The foremast is a single piece with the yard moulded in place; a connecting brace attaches to the control tower. The mainmast is made up of 4 parts with the yards also moulded in place. Both masts have raised detail and are extremely thin and can be used as is without resorting to replacements built from rod.

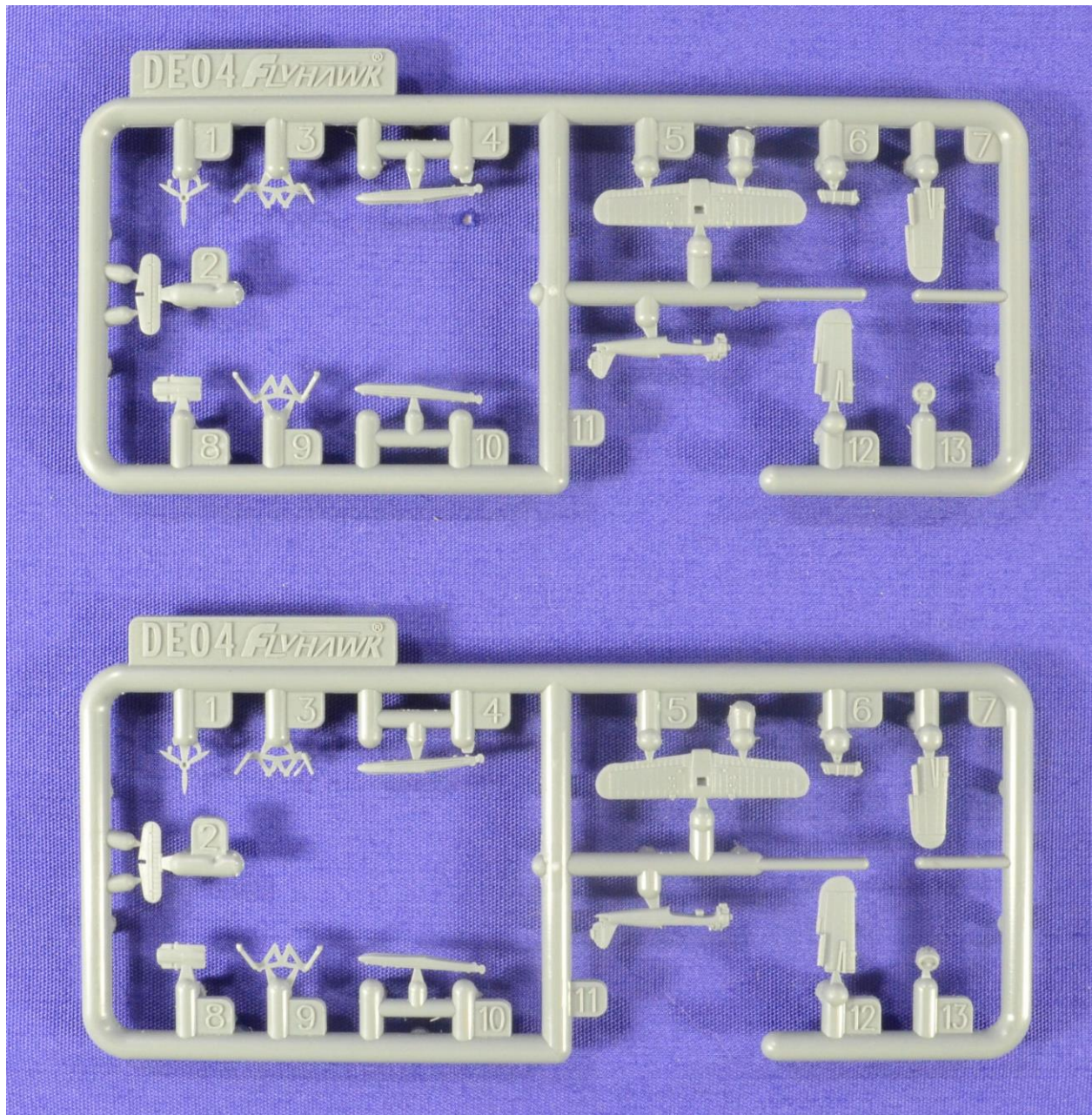


----- Masts, underwater fittings, breakwater, funnel cap, and other fittings -----

Aircraft:

Two Ar-196 are included for fitting on the catapult and can be assembled with wings folded or unfolded.

Each consists of ten parts: fuselage, tailplane, wing, canopy, engine, propeller, float struts, and floats. The wings, tailplane, and fuselage rudder have raised panel lines; the canopy has raised framework.



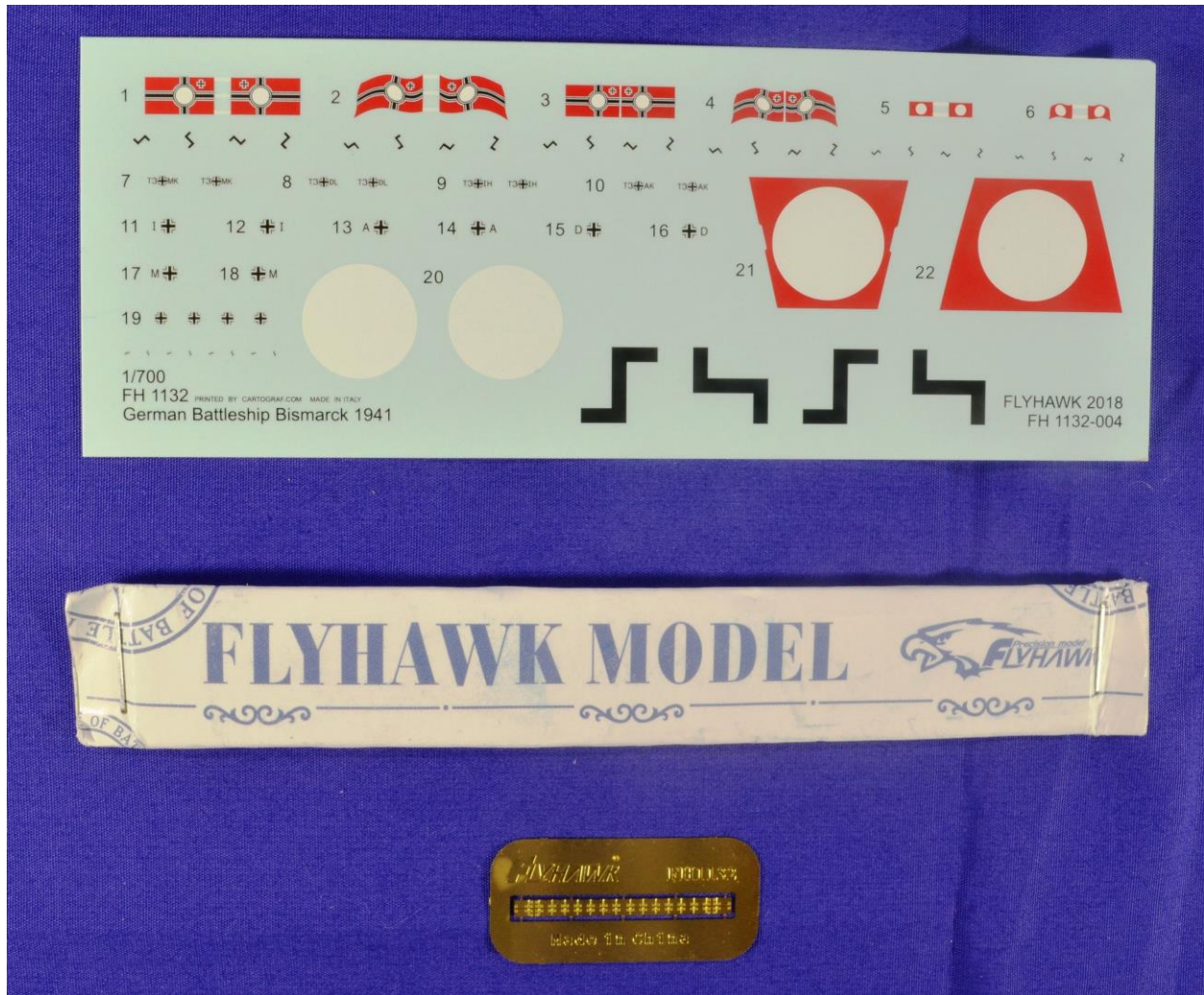
----- Ar-196 -----

Decals:

The very comprehensive decal sheet includes flags, aircraft recognition markings for the main deck, and markings for four different aircraft. The recognition markings are of two types, with or without the red border. In keeping in modern sensitivities the swastika is not printed on any of the markings, but pieces are included for the modeller to make one for each of the flags and recognition markings.

Photo-Etch:

There is one piece of photo etch which is to be used for the middle of the catapult if desired.



----- Decals, weight, and photo-etch -----

Instructions:

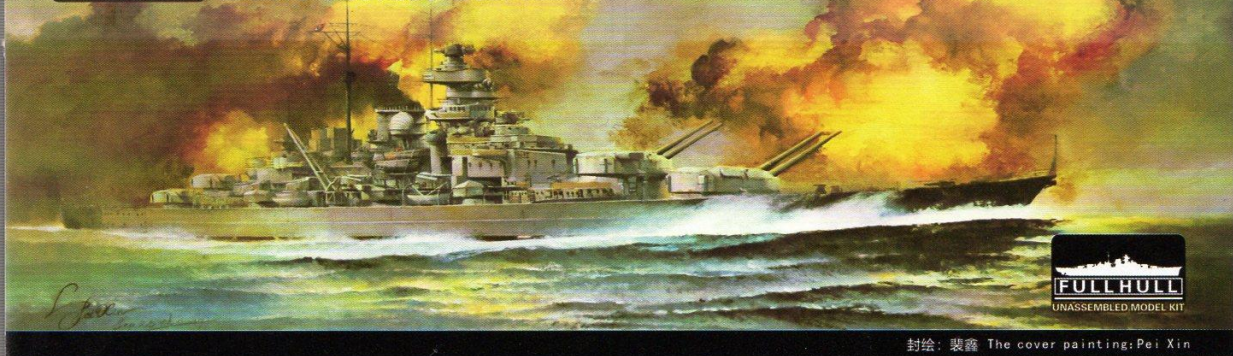
The instructions come on two large, double sided full colour pages. There are 17 assembly steps with 19 sub-assemblies. The assembly steps for the Ar-196 are shown separately.

The instructions are very clear and comprehensive and also feature a drawing showing all the sprues and parts included. Flyhawk uses colour coding to assist with placement of smaller parts; this is a very good feature which takes out a lot of guess work.

FH 1132 German Battleship Bismarck 1941

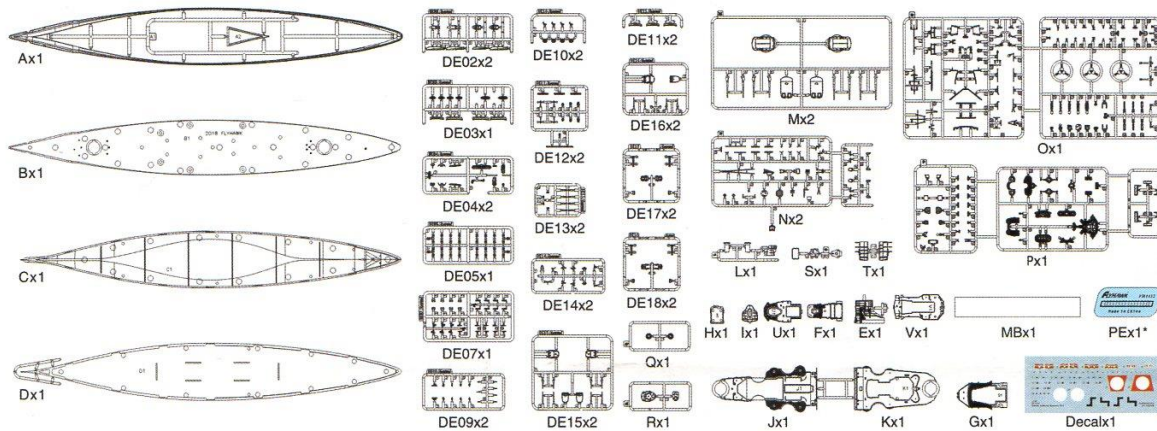
1/700 SCALE 德國海軍俾斯麥號戰列艦1941

FLYHAWK[®]



FULLHULL
UNASSEMBLED MODEL KIT

封绘: 裴鑫 The cover painting: Pei Xin



*FH1132S does not include this PE sheet.
*FH1132S中不含此蝕刻片
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READ BEFORE ASSEMBLING

组装前必读

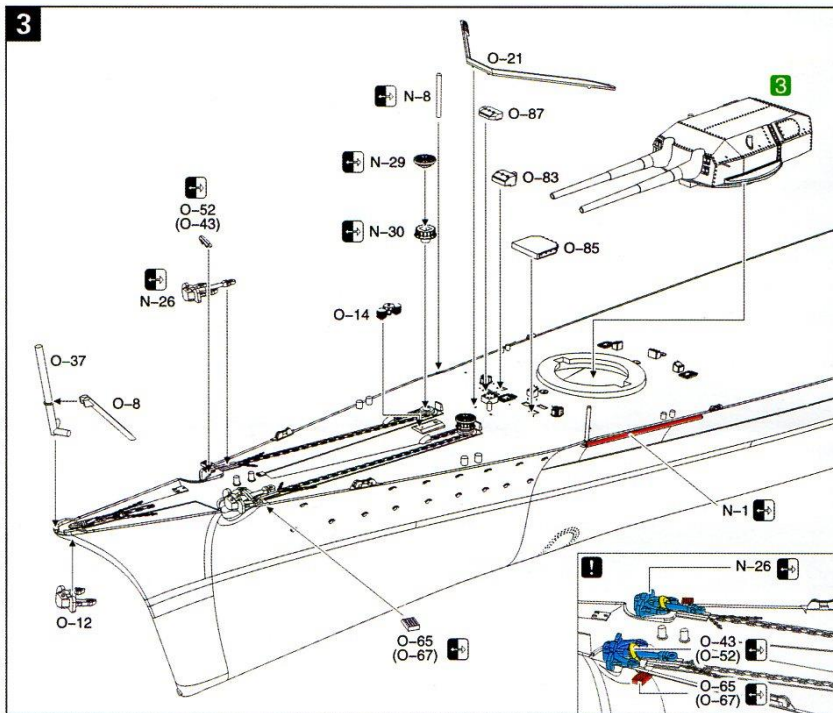
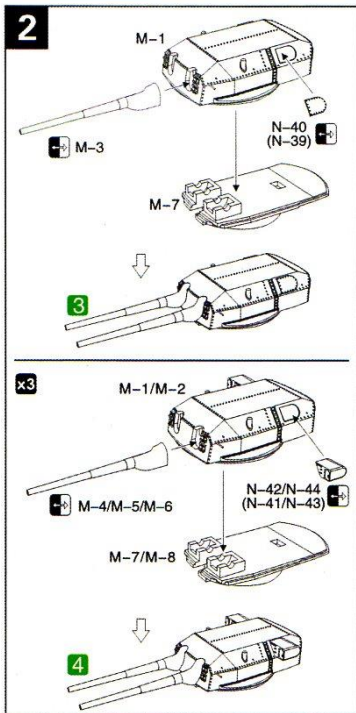
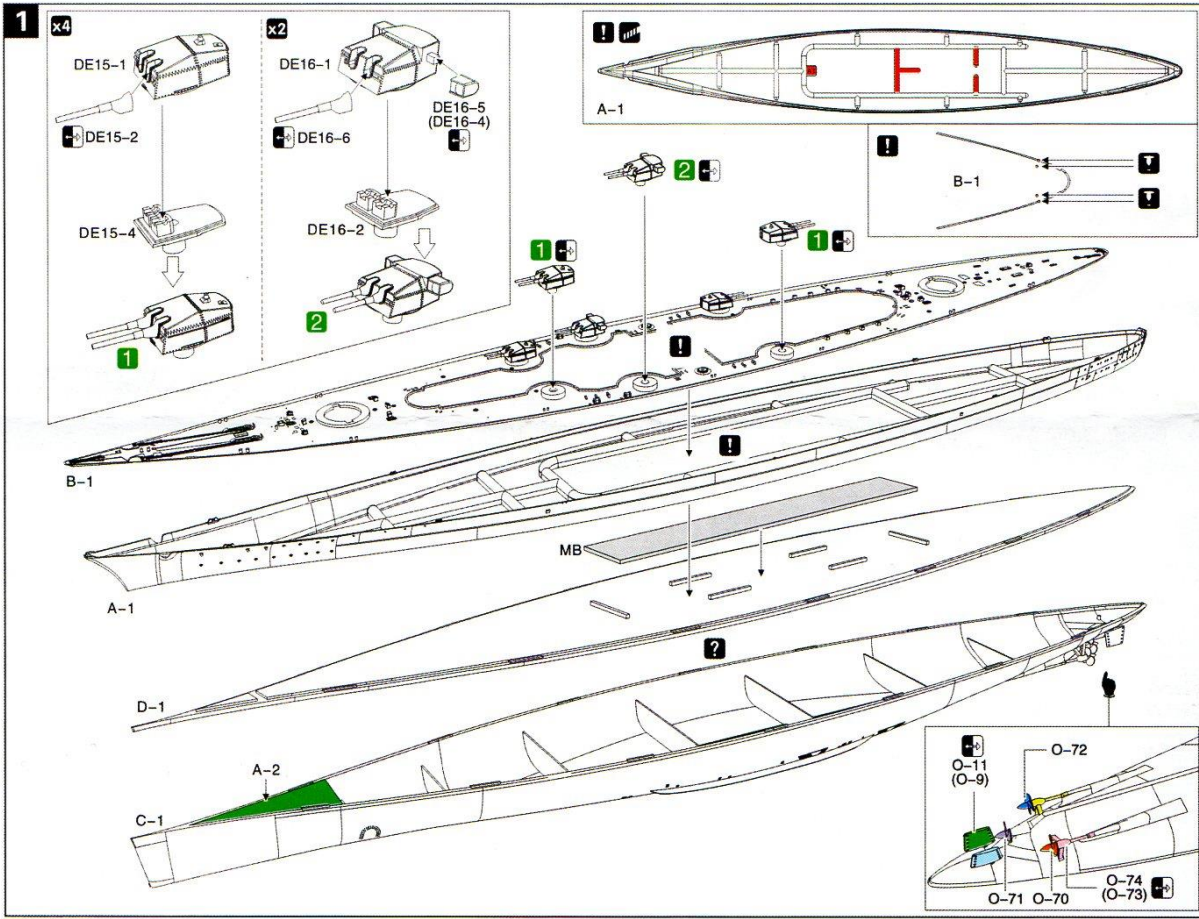
- Please check out the instruction before assembling.
- Glue and paint are not included.
- Glue, paint and other tools are not allowed to be reached by children.
- Please take care while using tools, glue and paint should be kept away from fire and be sure not working with models in confined chamber.
- The suite may contain metal parts, please be careful while working.

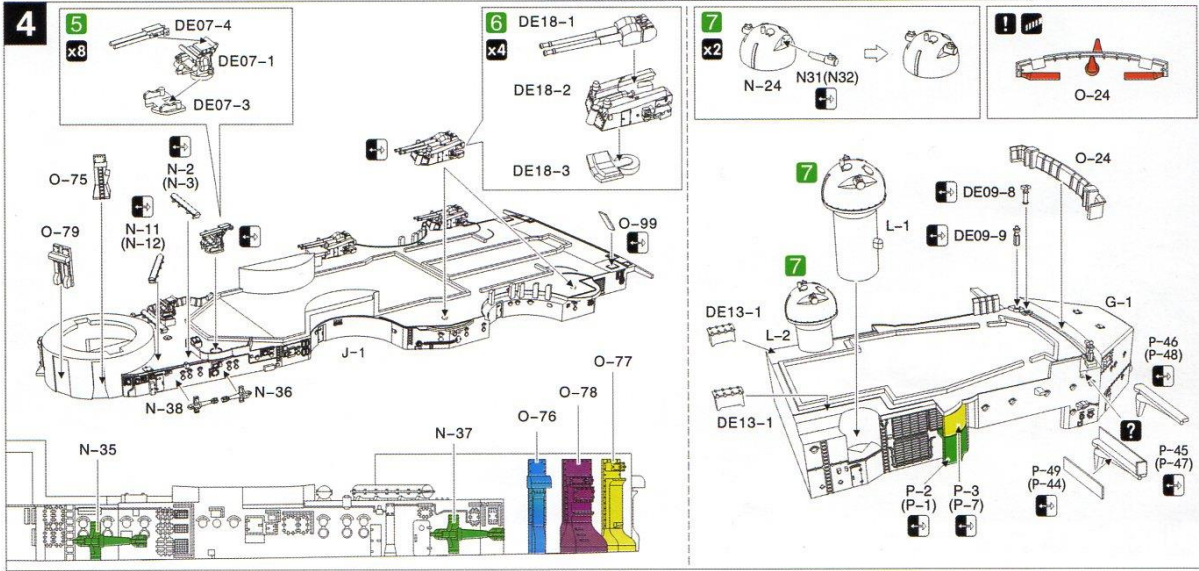
- 组装前请仔细阅读说明书。
- 本套件不含胶水和油漆。
- 胶水、油漆、工具等不可让小孩接触。
- 使用工具时请注意安全，胶水和油漆请勿靠近接触火种，请勿在密封的地方制作模型。
- 套件中可能附带金属零件，请小心制作。

ICON INSTRUCTION

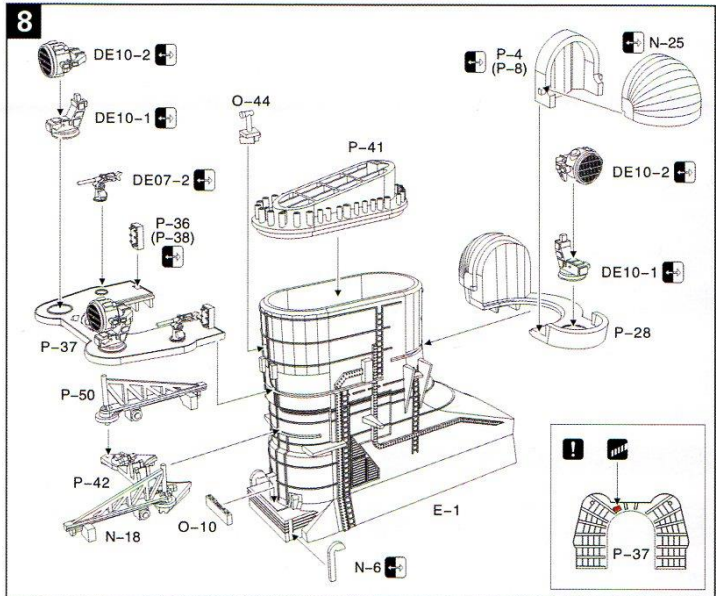
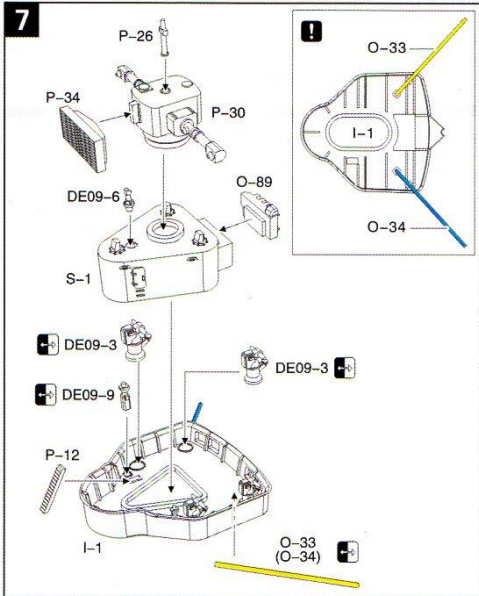
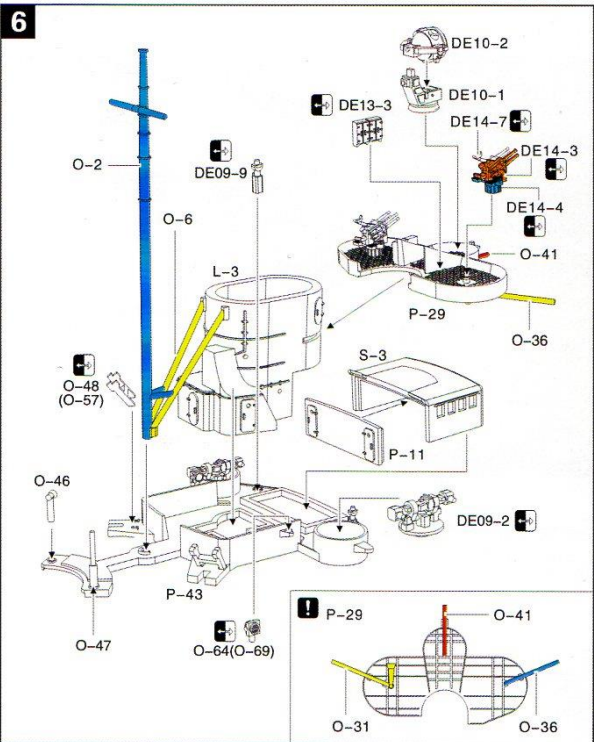
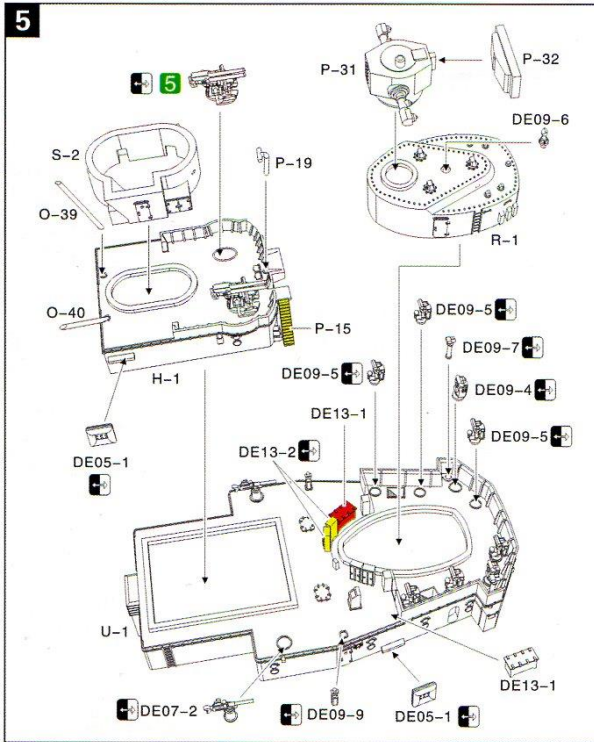
图例

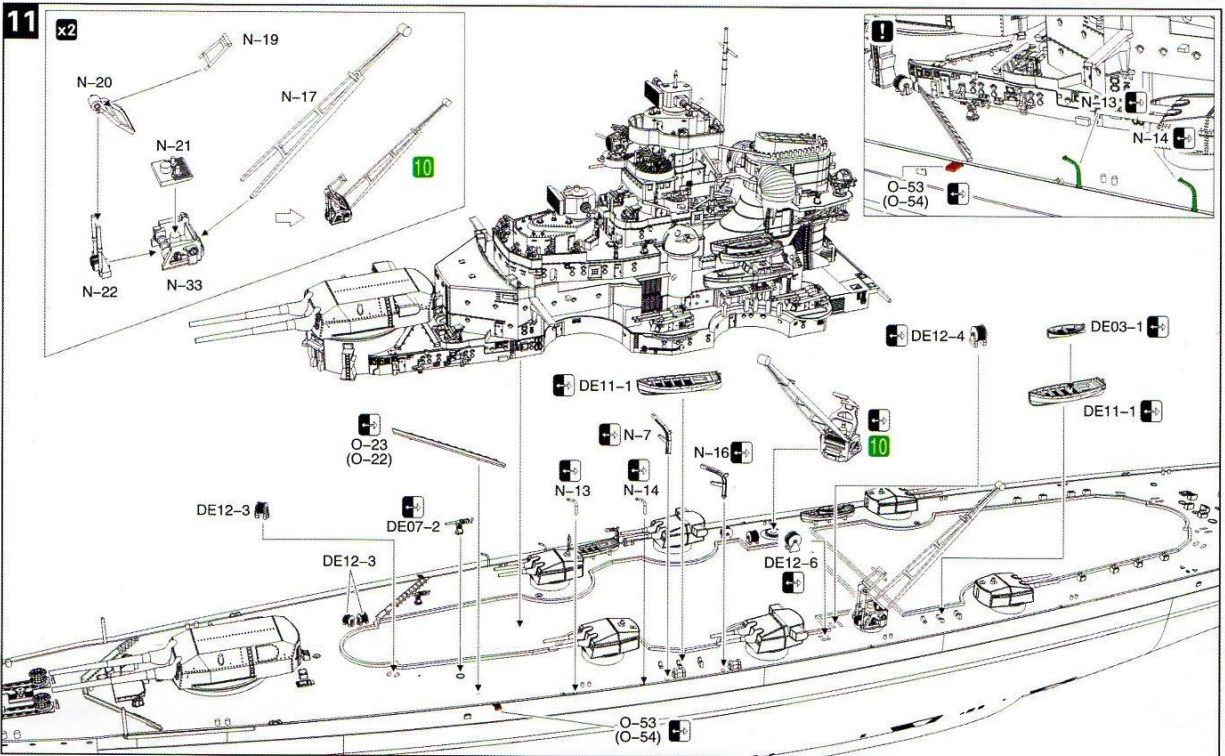
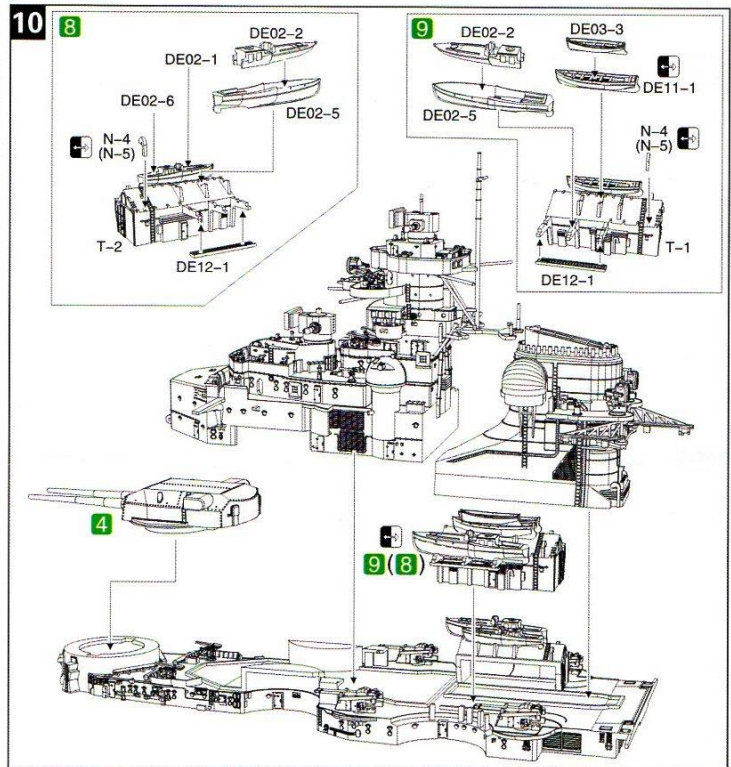
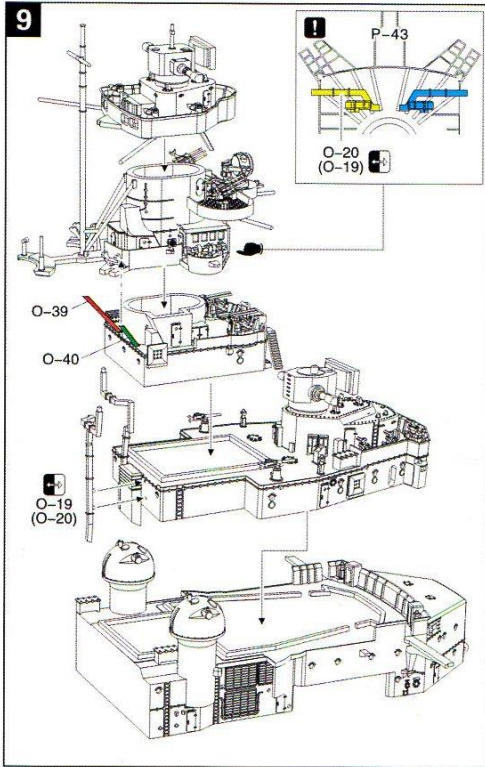




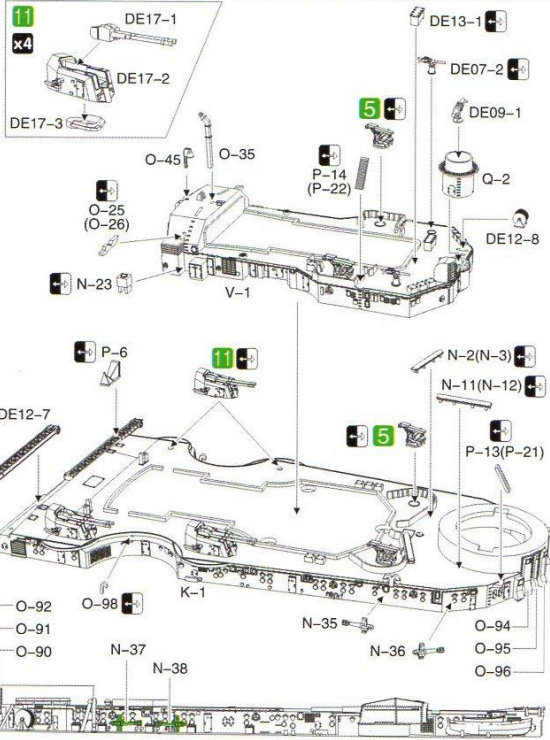


FH 1132 Page-1

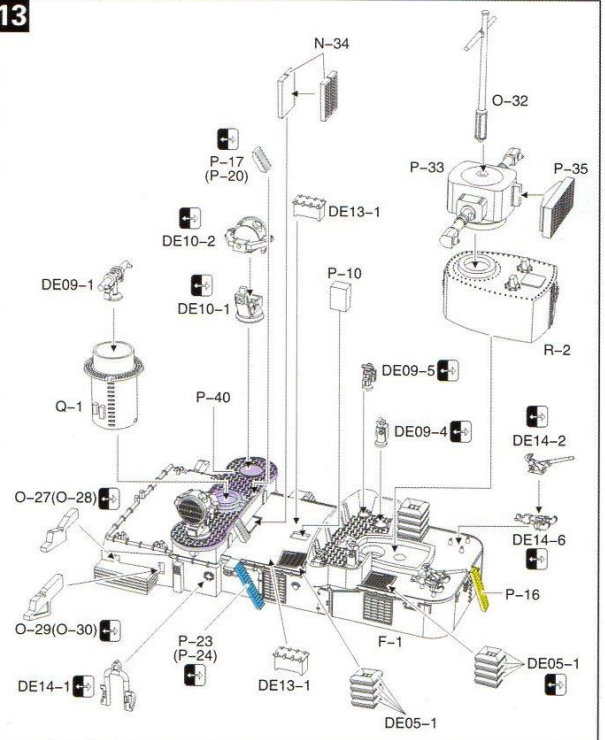


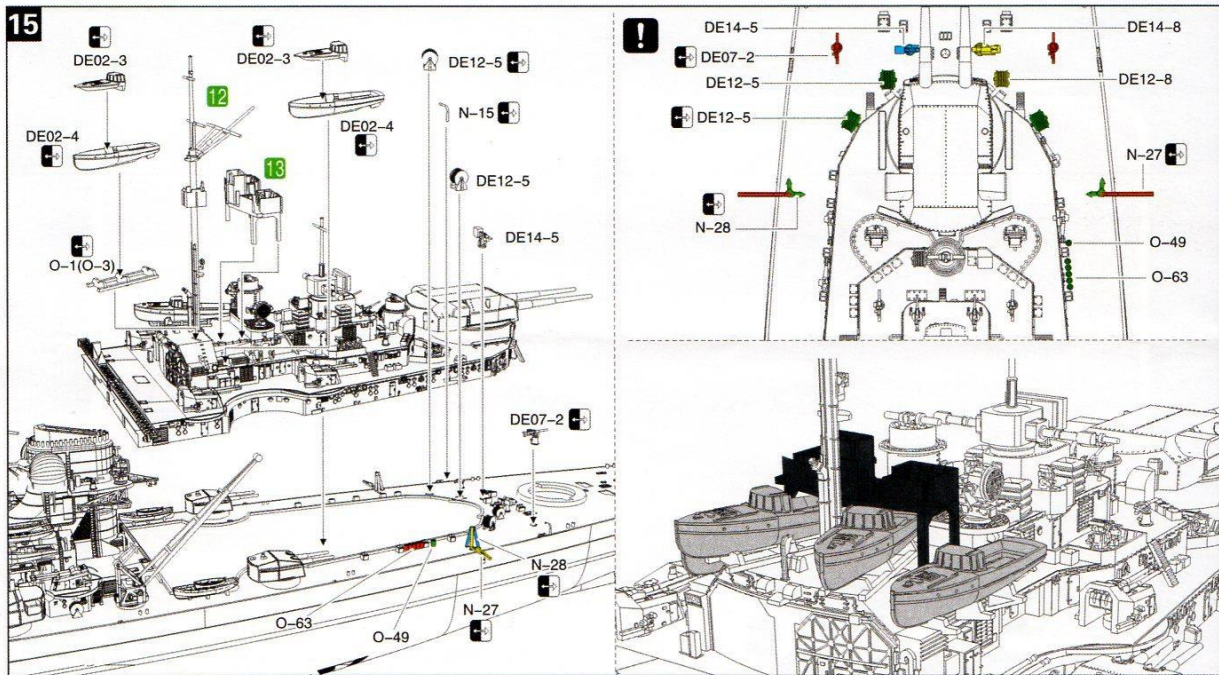
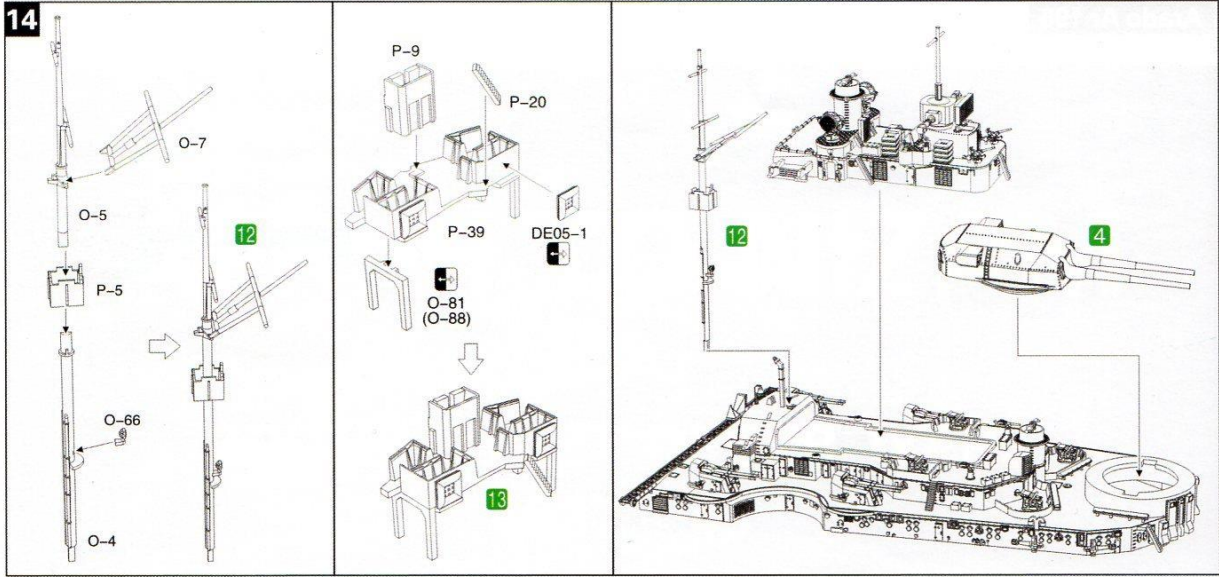


12

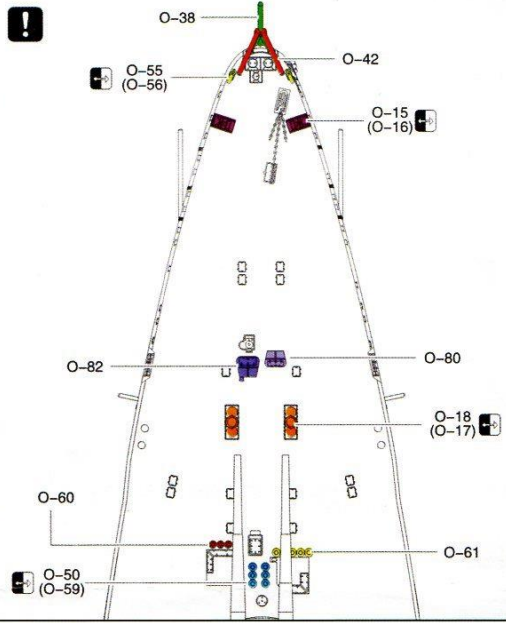
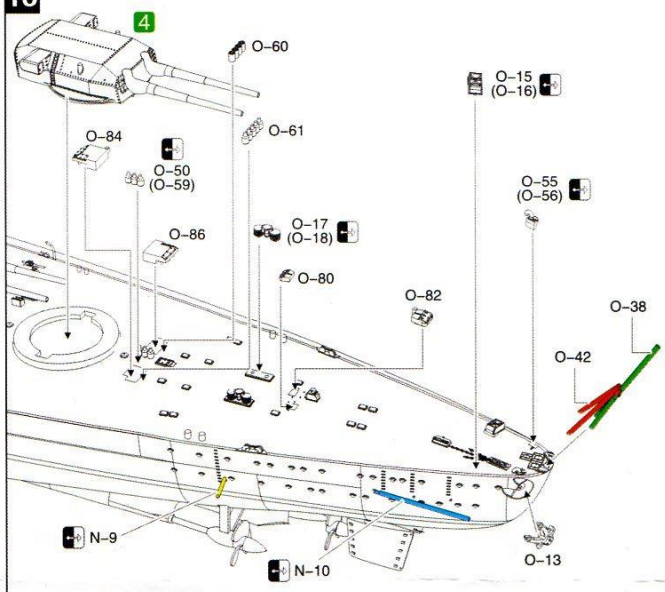


13

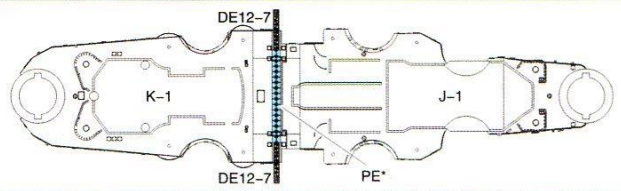




16

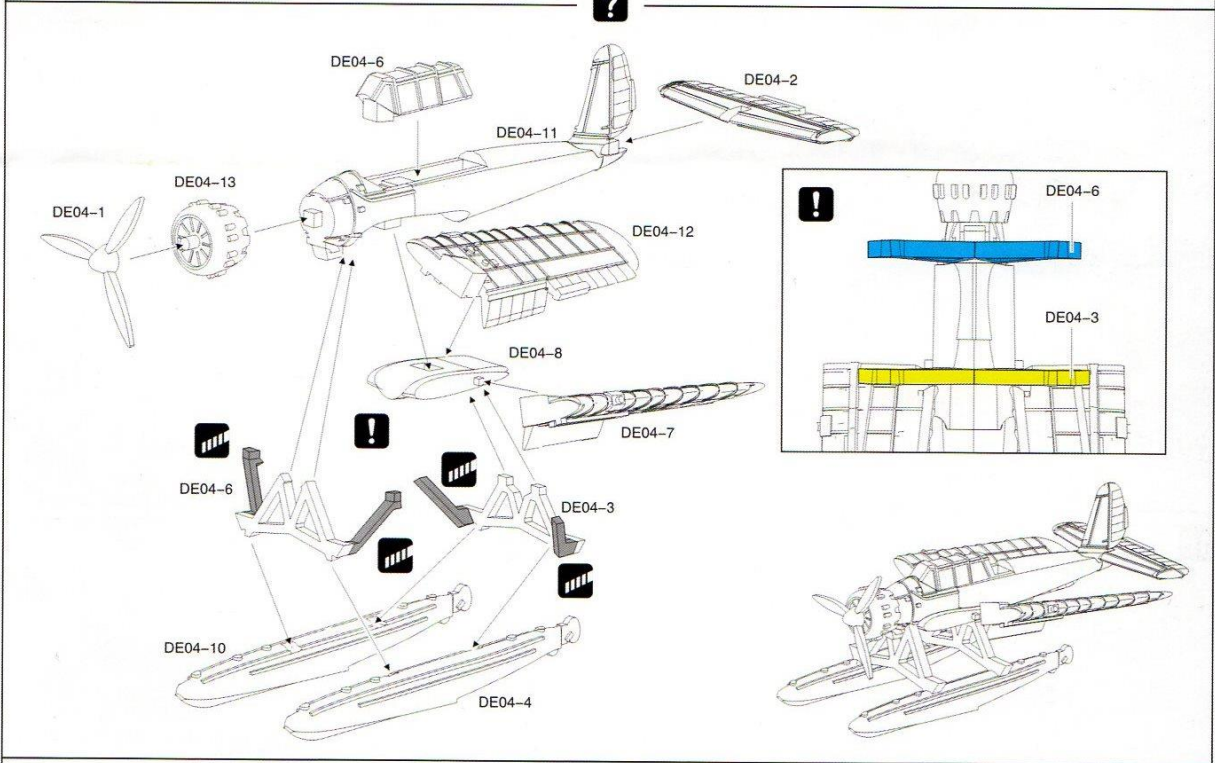
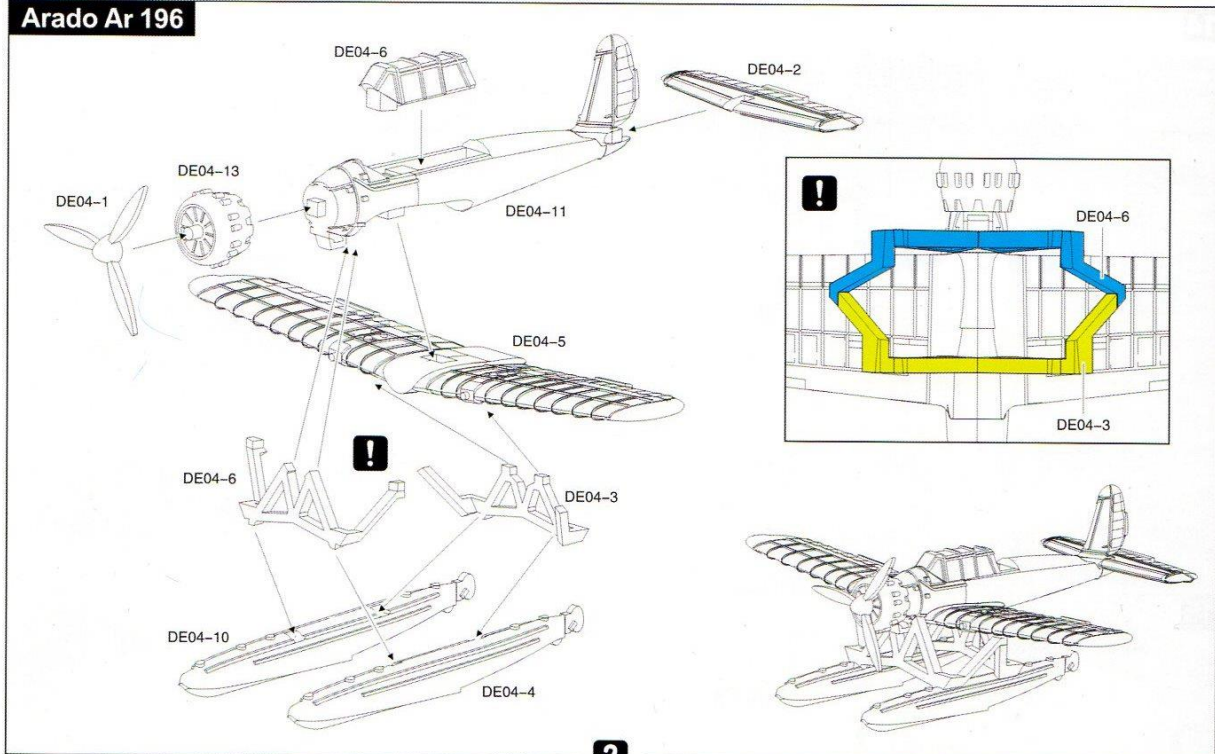


17



*FH1132S does not include this PE sheet.
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Arado Ar 196



----- Instructions -----

Colour scheme:

There is a full colour diagram of the two tone grey camouflage scheme worn by *Bismarck* during Operation Rheinübung with false bow wave, vestiges of the Baltic stripes along the waterline, and turret tops in dark blue-grey. The distinctive Baltic scheme of stripes, bow and stern waves, and dark hull panels was painted over during the stop-over at Bergen on May 21. Colour references are for the Mr. Hobby, Tamiya, and WEM Colourcoats paint ranges.

There are also full colour diagrams for the Ar-196.

PAINTING & MARKING GUIDE

Decal Application:

1. Cut the pictures from sheet as needed.
2. Dip the pictures in warm water for about 10 seconds.
3. Hold the picture backing sheet edge and gently slide the picture onto the model.
4. Please move the picture to the proper position on model.
5. Please gently press picture down with a soft cloth until excess water's out and no air bubbles.

塗装とラベリングの指示

デカルの使用方法:

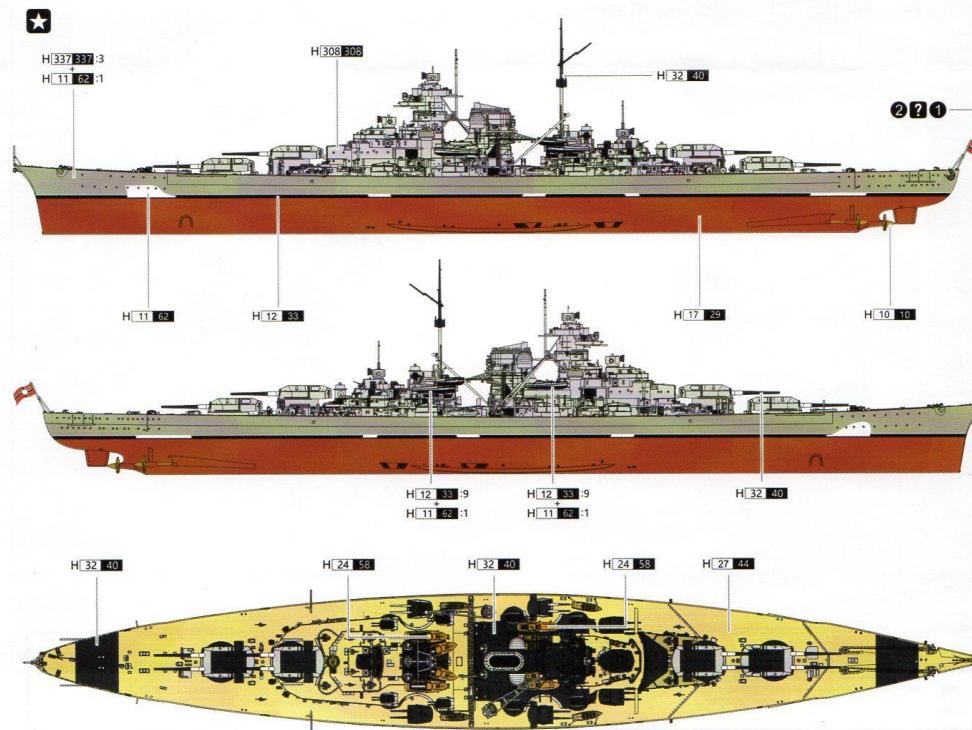
1. デカルから図案を切り取ります。
2. 図案を温かい水の中で10秒浸します。
3. 図案のボール紙を使って、図案を模型に移動します。
4. 図案を適当な位置に移動してください。
5. 柔らかい布で水が乾燥するまで図案を押さえて、気泡を消します。

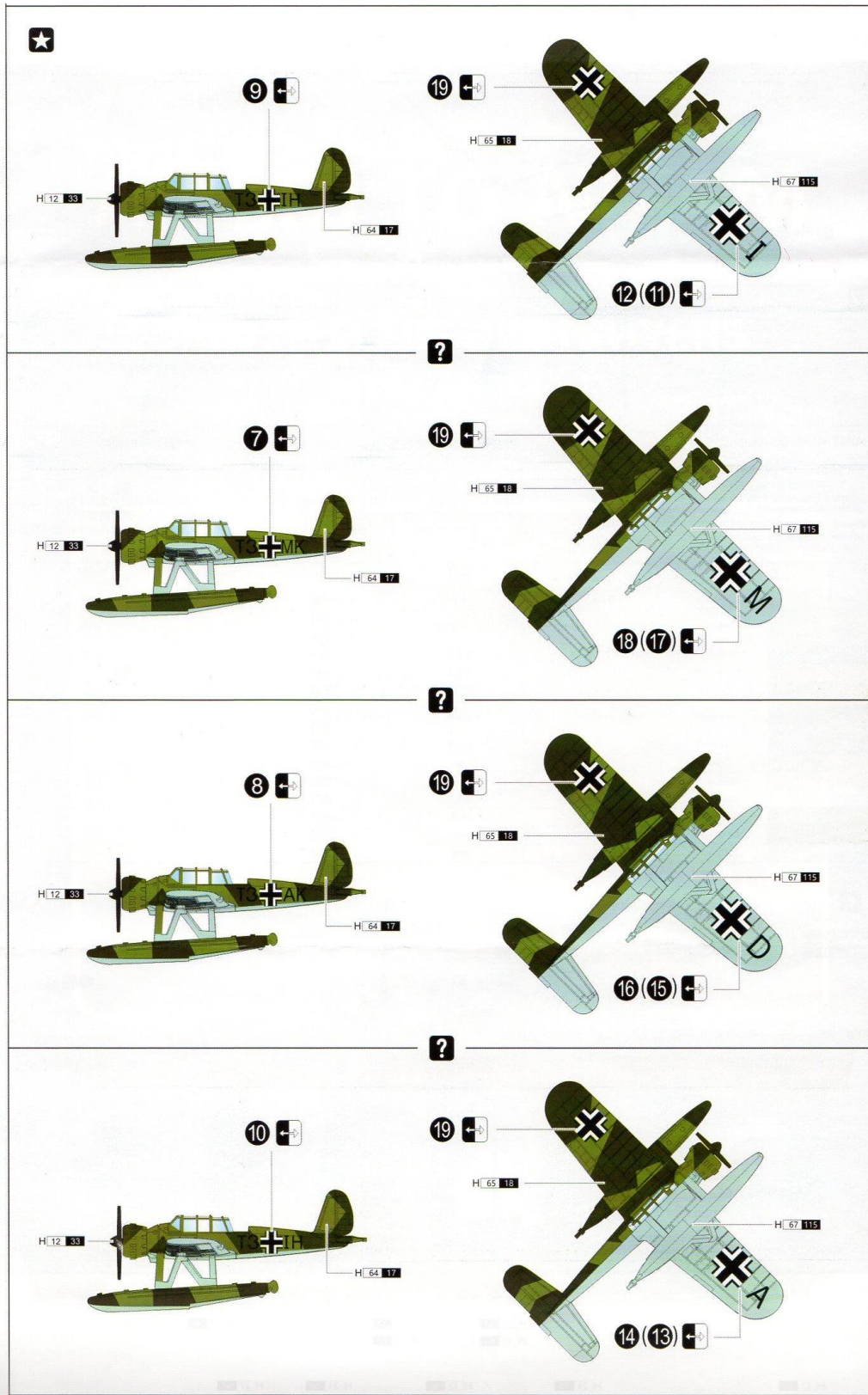
塗装與標貼指示

水貼紙的使用:

1. 從水貼紙上剪下圖案;
2. 將圖案放入溫水中浸泡10秒;
3. 拿著圖案紙板將圖案移到模型上;
4. 將圖案移到適當的位置;
5. 用軟布輕壓圖案直至水幹,消除掉氣泡。

	Color	色	顏色	Mr.Hobby	Tamiya	WEM Colourcoats
	Light Grey	ライトグレー	淺灰	H[308] 308	XF-19	KM01
	Dark Grey	ダークグレー	暗灰	H[337] 337 :3 H[11] 62 :1	XF-66	KM02
	Dark Blue-Grey	ダークブルーグレー	暗藍灰	H[32] 40	XF-63	KM03
	Orange Yellow	オレンジイエロー	黃橙色	H[24] 58	---	---
	Hull Red	ハルレッド	艦底紅	H[17] 29	XF-9	KM04
	Hull Grey	ハルグレー	艦底灰	H[12] 33 :9 H[11] 62 :1	XF-1:9 XF-2:1	KM05
	Flat Black	フラットブラック	消光黒	H[12] 33	XF-1	C02
	Copper	カッパー	銅	H[10] 10	XF-6	---
	Wooden Deck Tan	ウードン タン	木甲板色	H[27] 44	XF-78	C01
	Flat White	フラットホワイト	消光白	H[11] 62	XF-2	C03
	Deep Green	ディーブグリーン	深緑	H[64] 17	XF-26	---
	Black Green	ブラックグリーン	墨緑	H[65] 18	XF-27	---
	Light Blue	ライトブルー	淺藍	H[67] 115	XF-23	---





----- Colour schemes -----

Overall Impression:

Flyhawk has produced another winner with this kit – while there are many *Bismarck* kits available this is the one to build. Immensely detailed and well-engineered, this kit sets a new standard and should prove to be a straight-forward build with little need for gap filling or sanding. The single piece hollow funnel with its complex curves and moulded on detail shows just how far Flyhawk has pushed the state of the art with this kit.

The plastic pieces stand up to rough handling, bending rather than breaking, and the main superstructure parts that aren't provided as separate pieces will easily detach from their sprues.

The instructions are very comprehensive and the use of colour coding will ease the assembly of the smaller parts. Modellers who aren't comfortable with small parts can simply leave them off; the overall amount of detail will still provide an impressive finished model. Don't let the box full of parts dissuade you!

It is also very accurate, matching up very well with the drawings and photos in my various reference books, right down to the lack of rangefinders on Bruno turret and four of the 5.9in turrets.

The only item that modellers may consider would be anchor chain.

This is a highly recommended kit, the first German battleship produced by Flyhawk and it will make a splendid addition to any collection. Congratulations once again to Flyhawk for providing such a well-researched and well-engineered kit.

References:

- *Battleship Bismarck A Survivor's Story* by Baron von Mullenheim-Rechberg. Triad Granada 1984
- *Battleships: Allied Battleships in World War II* by William H. Garzke and Robert O. Dulin. Naval Institute Press 1980
- *Battleships: Axis and Neutral Battleships in World War II* by William H. Garzke and Robert O. Dulin. Naval Institute Press 1990
- *Battleships of the Bismarck Class* by Gerhard Koop and Klaus-Peter Schmolke. Naval Institute Press, 1998
- *Bismarck and Hood – A Technical Analysis* by Marco Santarini. Fonthill Media 2013
- *The Discovery of the Bismarck* by Robert D. Ballard and Rich Archbold. Madison Publishing 1990
- *KM Bismarck – Warship Profile 18* by Paul Schmalenbach. Profile Publications 1972
- *Pursuit* by Ludovic Kennedy. Book Club Associates 1975

Review kit courtesy of Flyhawk Models