SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
DARING 18th Feb., 1940	Two Contact Torpedoes fired from submarine	Sunk	DARING was escorting a convoy at 8 knots off the Orkney Islands when she was struck by two torpedoes. The ship broke in two, and sank almost immediately.
GLOWWORM 8th April, 1940	Shell and ranming cruiser	Sunk	GLOWWORM engaged a German task force, whilst operating off the Norwegian Coast. Under the cover of a smoke screen, the destroyer rammed the German cruiser HIPPER abaft the forecastle. After the collision GLOWWORM ceased fire, being immobilised with a heavy heel, and apparently on fire. The ship was abandoned, and when the HIPPER left the scene of the action it was considered that GLOWWORM would sink within an hour.
GURKHA (1) 9th April, 1940	Six Near Miss size and type unknown Bombs	Sunk	GURKHA, whilst operating 30 miles off Kors Fjord (Norway) was attacked by enemy aircraft and six near miss bombs were dropped on the starboard side abreast the gear room from 150 yds. to alongside. Immediate flooding of the gearing room, engine room, and the majority of the after compartments occurred. An oil fuel fire started under the after superstructure. The ship heeled to starboard, with upper deck aft nearly awash, and remained afloat for 5½ hours, with H.A. director, T.S. and foremost guns in action engaging enemy aircraft. About 1½ hours before the ship sank, the Nos. 1 and 3 0.F. tanks were pumped out overboard. REMARKS This incident emphasised the danger of pumping out oil fuel tanks to correct list, so causing loss of stability, and possible subsequent loss of vessel in heavy seas.
HOTSPUR 10th April, 1940 D.N.C.4B/R9	Seven Direct Hits and "Short" Probably 5" number unknown mostly direct action fuzed Shells	2 months	HOTSPUR, while taking part in First Battle of Narvik in Ofot Fjord (Norway), was engaged by enemy destroyers probably of the MAAS Class. The ship sustained seven in number direct hits causing severe structural and splinter damage. A fire was started forward, and minor flooding through splinter holes occurred throughout the ship. Fighting Efficiency - Severely impaired. The R.F. and D.C.T. were put out of action and guns were fired by local control only. The steering gear and No.2 boiler room were also put out of action. Seaworthiness was impaired by danger of flooding through splinter holes, when at speed. REMARKS This action emphasised the need for steel helmets to be issued to personnel in lightly protected positions, and for increased protection to telemotor leads to steering gear. HOTSPUR rammed HUNTER while out of control due to damaged steering gear.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HARDY 10th April, 1940	Twelve Direct Hits and number unknown "Short" probably 5" mostly direct action fuzed Shells	Foundered	HARDY, while taking part in First Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers, probably of the MAAS class. The ship sustained about twelve direct hits, which caused severe structural damage, and put her out of action. The ship was also on fire. The steering gear was in working order and No.4 gun continued to fire, but ship was finally abandoned and drifted ashore and foundered. REMARKS See HOTSPUR Page 117.
HAVOCK 10th April, 1940	Unknown number "Shorts" probably 5" mostly direct action fuzed Shells	Nil	HAVOCK, while taking part in First Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers, probably of the MAAS Class. The ship sustained damage by splinters, but remained in action. Fighting Efficiency - Unimpaired. REMARKS See HOTSPUR Page 117.
HOSTILE 10th April, 1940	One Direct Hit and number unknown "Short" probably 5" mostly direct action fuzed Shells	Nil	HOSTILE, while taking part in First Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers probably of the MAAS class. The ship received one hit forward which caused minor damage, while near misses, when the ship was straddled, caused splinter damage. Fighting Efficiency - Unimpaired. The ship remained in action. REMARKS See HOTSPUR Page 117.
HUNTER 10th April, 1940	Probably Torpedo fired from destroyer Direct Hits and "Shorts" probably 5" mostly direct action fuzed Shells	Sunk	HUNTER, while taking part in First Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers, probably of the MAAS Class. The ship received severe structural damage in vicinity of forward torpedo tubes which were missing. She was on fire and out of control. REMARKS HUNTER finally sank when she was rammed by HOTSPUR. See HOTSPUR Page 117.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ECLIPSE 11th April, 1940	One Direct Hit three Near Miss Estimated 150 lbs. direct action fuzed Bombs	4 months	ECLIPSE, while acting as anti-submarine screen to the Battle fleet off Norway, was attacked by enemy aircraft. The ship sustained a direct hit at the deck edge in the centre of engine room, starboard, causing a hole about 7 ft. in diameter and damage from sheer strake to the bilge keel. The engine room, shaft tunnels, gland spaces and warhead magazine were flooded. Splinters from near misses caused minor damage and affected some fire and torpedo circuits. Fighting Efficiency = Severely impaired.
			The ship was immobilised, unable to steam and the dynamos failed, due to flooding. REMARKS This incident emphasised the need for all destroyers to be supplied with a 12" manilla rope fitted to shackle on to a cable, with a towing slip at the other end, to facilitate towing arrangements when vessel is damaged.
BEDOUIN 13th April, 1940	One Direct Hit and "Short" Number and size unknown direct action	2 weeks	BEDOUIN, while operating off Norway, was hit by enemy shellfire. The left gun of 'A' gun mounting sustained a direct hit. Splinters from near misses caused minor damage to hull and superstructure. Fighting Efficiency - Impaired. 'A' gun was put out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
PUNJABI 13th April, 1940 D.N.C.4B/R11	Six Direct Hits One "Short" 5.9" (Estimated) 106 lbs. H.E. direct action fuzed Shells	2 months	PUNJABI, while taking part in the First Battle of Narvik in Ofot Fjord (Norway), was engaged by enemy destroyers and shore batteries. Hit No.1 struck the starboard side, about 2 ft. below the forecastle deck, just abaft 'B' gun mounting. It caused minor structural damage at point of impact, and splinters put the transmitting station out of action, and caused partial disablement of W/T. Hit No.2 struck the forecastle deck on the starboard side abreast fore end of superstructure causing minor structural and splinter damage. Hit No.5 struck the starboard side 3 ft. forward of the collision bulkhead, and 5 ft. below the upper deck level. Minor structural damage was caused and minor flooding at fore end took place when the ship was moving at speed. Hit No.4 struck the edge of the upper deck at the after end of the forward funnel. The ship's boats on the starboard side were damaged and rendered unseaworthy, and splinters started a fire in the cinema film store. Smoke from this fire was drawn into No.2 boiler room by the supply fans, and the boiler room was out of action for about half an hour. Hit No.5 burst on impact with the after end of the 25 ft. motor boat. Splinter damage was caused, and one splinter pierced the exhaust steam pipe in the engine room, causing a temporary loss of efficiency. Hit No.6 struck the starboard side of the ship just below the upper deck, abreast 'Y' gun mounting. Minor structural and splinter damage was caused, the leads to the starboard steering engine telemotor being put out of action. Near Miss exploded on impact with the water on the starboard side just forward of 'A' gun mounting, and caused extensive splinter damage to ship's services.
			Fighting Efficiency - Impaired. REMARKS This incident emphasised the need for cinematograph films to be landed before action or stowed on weather decks, while fire hoses should be kept under cover until required. Splinter protection is necessary for the transmitting station, and calcium flares should be stowed on the weather deck for ready disposal when damaged.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ESKIMO 13th April, 1940 D.N.C.4B/R12	One Contact Torpedo fired from destroyer	5 months	ESKIMO, while taking part in the Second Battle of Narvik in Ofot Fjord (Norway), was engaged by enemy destroyers. The torpedo hit the starboard side about 25 ft. forward of As gun mounting demolishing the fore end back to this mounting. Flooding occurred below the lower deck to 57 station while minor flooding occurred above the lower deck to 66 station.
-			Fighting Efficiency - Seriously impaired. A' gun was completely out of action and 'B' gun could only be fired for a short time. The asdic was destroyed and vessel could not steam ahead.
FORESTER 13th April, 1940	One "Short" 5.9" (estimated) 106 lbs. H.E. direct action fuzed Shell	Nil	FORESTER, while taking part in the Second Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers. The shell caused minor splinter damage to the hull and superstructure. Fighting Efficiency - Unimpaired. The ship remained in action. REMARKS This incident emphasised the need for a greater allowance of steel helmets and for splinter protection to the crew of the torpedo tubes.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
COSSACK 13th April, 1940	Eight Direct Hits One "Short" 5" (estimated) Seven direct action fuzed Two delay action fuzed Shell	9 weeks	COSSACK, while taking part in the Second Battle of Narvik in Ofot Fjord (Norway) was engaged by enemy destroyers. Hit No.1 exploded on impact with port side between the upper and forecastle decks about 20 ft. forward of 'A' gun mounting causing minor structural and splinter damage. Hit No.2 exploded on impact with port side between lower and upper decks about 25 ft. forward of 'A' gun mounting causing minor structural and splinter damage. Hit No.2 entered port side just below lower deck level about 20 ft. forward of 'A' gun mounting and passed out through starboard side just forward of 'A' gun mounting without detonating. The exit hole was below the waterline causing flooding which put asdic out of action. Hit No.4 struck the port side about 6" below the upper deck level abreast No.2 boiler room. Minor structural and splinter damage was caused and, due to perforated steam pipes, the steam supply to No.1 boiler room was cut, No.2 boiler room was filled with superheated steam and put out of action while No.3 boiler room was filled with superheated steam and put out of action while No.3 boiler room was filled with superheated steam and put out of action while No.3 boiler room was filled with superheated steam and put out of action while No.3 boiler room was filled with superheated steam and put out of action while No.3 boiler room was filled with superheated steam and put out of action the steam dynamos, steering through splinter holes. The splinters also put out of action the steam dynamos, steering through splinter holes. The splinters also put out of action the steam dynamos, steering through splinter with the edge of forecastle deck slightly forward of 'B' gun mounting causing slight structural and splinter damage. Hit No.6 exploded on impact with port side between upper and forecastle deck causing minor structural and splinter damage. Hit No.8 exploded deliberately as a fire precaution. Hit No.8 exploded deliberately as a fire precaution. Hit No.8 exploded on impact with port side of forward superstru

NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
Size and type unknown Bomb	Nil	KIMBERLEY while patrolling off Narvik, was attacked by aircraft. Minor splinter damage to the hull was sustained. Fighting Efficiency - Unimpaired.
Two Near Miss size unknown delay action fuzed Bombs	3 months	KIFLING while returning from the Stavangar raid, was attacked by an enemy aircraft, which dropped two bombs. The first bomb fell abreast No.1 boiler room, about 30 ft. from the port side of the ship, while the second bomb dropped abreast the after torpedo tubes about 15 ft. from the port side of the ship. The bombs exploded about 30 ft. below the surface and caused only minor structural damage. Fighting Efficiency - Slightly impaired. The after torpedo tubes could only be trained with difficulty. Although the castings to main and auxiliary machinery were cracked, the ship steamed at 30 knots for several hours. REMARKS This incident emphasised the need for the provision of spare lengths of hoses to reach from the fire and bilge pumps to any part of the engine room, and for flexible exhausts to diesel generators. "Semtex" deck coverings were recommended instead of the "Wunder" grip fitted.
Size and type unknown Bomb	1 month	GREYHOUND was attacked by aircraft and sustained minor structural damage to forecastle and forward mess deck. At gunshield and gun supports were slightly buckled. Fighting Efficiency - Slightly impaired.
One <u>Direct</u> Hit size and type unknown <u>Shell</u>	2 weeks	ARROW was damaged when a shell struck the port side of the engine room about 4 ft. above the waterline. Minor damage was caused to the structure and machinery. Fighting Efficiency - Slightly impaired.
	Size and type unknown Bomb Two Near Miss size unknown delay action fuzed Bombs Size and type unknown Bomb One Direct Hit size and type	Size and type unknown Bomb Two Near Miss size unknown delay action fuzed Bombs Size and type unknown Bomb One Direct Hit size and type ACTION Nil Nil Two Near Miss size and type Action Nil Two Near Miss size and type Action Nil Two Near Miss ize and type 2 weeks

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ASHANTI 28th April,1940	Two Near Miss size unknown direct action fuzed Bombs	3 weeks	ASHANTI while patrolling Trondheim Leden (Norway), was attacked by enemy aircraft which dropped many bombs. One dropped near the port side abreast the bridge causing a loss of electrical power with both dynamos disconnected and port castings cracked. Another dropped about 5 yds. from the port side abreast the torpedo tubes causing minor splinter damage and slight leaks to oil fuel tanks.
			Fighting Efficiency - Slightly impaired.
28th April,1940 s	Near Miss size and type unknown	Nil	NUBIAN while operating off the Norwegian coast, was attacked by enemy aircraft. Near misses caused slight damage to the director.
	Bombs	h -	Fighting Efficiency - Not impaired.
WITHERINGTON 29th April,1940	Near Miss size unknown direct action fuzed Bomb	3 days	WITHERINGTON received minor splinter damage to the hull structure. Fighting Efficiency - Not impaired.
WREN 31st April,1940 - 16th May,1940	Size and type unknown Bomb	Nil	WREN while operating off Norway, was attacked by enemy aircraft. Only minor damage was sustained. Fighting Efficiency - Not impaired.
MAORI 2nd May, 1940	Six Near Miss 20 lbs. (approx.) direct action fuzed Bombs	3 weeks	MAORI while operating off Norway near Kya Light, was attacked by enemy aircraft. The bombs dropped close to the port side abreast the torpedo tubes and caused minor damage to structure, miscellaneous instruments and auxiliary machinery. Fighting Efficiency - Not impaired. The W/T was temporarily out of action because the main aerials were shot away.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
AFRIDI 3rd May, 1940	Two Direct Hit size unknown delay action fuzed Bombs	Sunk	AFRIDI while operating off Norway was attacked by enemy aircraft. Hit No.1 passed through the galley and forward boiler room and exploded, causing a hole in the side plating port which admitted water to No.2 boiler room. The explosion also caused a fire in the W/T office. Hit No.2 blew in sections of the port side plating abreast No.1 and No.2 guns, started a fire in the after end of the mess decks and also caused the forward compartments to be flooded forward. The ship finally capsized, and sank bow first, 46 minutes after the first attack.
KELLY 9th May, 1940 D.N.C.4B/R18	One Contact probably 21 inch Torpedo fired from E-boat	8 months	KELLY while operating in the Skagerrack was attacked by a German 'E' boat. The torpedo struck the port side causing a large hole to be made 47 ft. long and 14 ft. deep from 7 ft. below the upper deck while the upper deck was damaged over a length of 50 ft. The whole area between the forward bulkhead of 'B' magazine and shell room and the after bulkhead of No.1 boiler room was immediately flooded while No.2 boiler room flooded shortly after. The ship listed 15 degrees to starboard with the upper deck awash. Fighting Efficiency - Severely impaired. The transmitting station, W/T, gyro-compass and low power rooms were all out of action but guns could be operated by local control with reduced ammunition supply. The ship was immobilised and was taken in tow. REMARKS This incident emphasised the need for a reserve diesel generator to be installed in the gearing room to supplement the electrical supply when boiler rooms are put out of action, and for Aldis batteries to be provided both on the bridge and aft. Type 53 W/T set, if carried, should be ready aft. Modifications to pumping arrangements are necessary and ready-use H.A. ammunition should only be jettisoned in cases of extreme necessity.
WHITSHED 10th May, 1940	Size and type unknown Bomb	Nil	WHITSHED sustained minor structural damage and also damage to the director and steering gear. Fighting Efficiency - Slightly impaired.

1200			DIBLIKOTING - 1740
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HESPERUS 12th May, 1940	Three Near Miss size and type unknown Bombs	4 weeks	HESPERUS while operating off Mo (Norway) was attacked by enemy aircraft. The bombs dropped abreast the starboard quarter, the nearest being 20 yds. from the ship's side, causing minor damage to bulkheads and side plating which were buckled and leaking. Fighting Efficiency - Not impaired. REMARKS This incident emphasised the need for greater anti-aircraft protection.
WILD SWAN 12th/13th May, 1940	Near Miss size and type unknown Bomb	Nil	WILD SWAN while operating in the English Channel, was attacked by enemy aircraft. No structural damage was sustained but shock caused both condensers to leak and the main engines had to be temporarily shut down due to priming. The electric lead to the asdic training motor was broken and several low power fuses were blown. Fighting Efficiency - Temporarily impaired.
VERSATILE 13th May, 1940	One Direct Hit several Near Miss 50 lbs. H.E. (approx.) direct action fuzed Bombs Machine gun attack	1 month	VERSATTLE while securing alongside the jetty at the Hook of Holland, was attacked by enemy aircraft. A bomb hit the upper deck over the engine room causing minor structural damage. Splinters from this bomb and the near misses caused damage from 'A' gun to quarter deck and the auxiliary machinery suffered minor damage. The machine gun attack caused extensive peppering of the superstructure. Fighting Efficiency - Seriously impaired. The steam pipe to the after auxiliaries burst and ship was immobilised and unable to steam. One third of the ship's company were casualties.
WIVERN 14th May, 1940	Near Miss 500 lbs. direct action fuzed Bomb	4 weeks	WIVERN while operating off the Hook of Holland was attacked by enemy aircraft and sustained a near miss off the port quarter. Structural damage was caused between 140-155 station and splinter holes were made in the side of ship. A serious cordite fire was started (probably by splinters) at "X" and "Y" guns and in the after magazine. Fighting Efficiency - Seriously impaired. The after group of B.L. 4.7 inch gun and supply parties were put out of action. REMARKS This incident emphasised the need for the issue of steel helmets to all personnel on upper deck and for anti-flash clothing to gun crews and supply parties. Modification to the fastenings of lids of Clarkson cases is also required.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WINCHESTER 15th May, 1940	Six Near Miss 500 lbs. direct and delay action fuzed Bombs	1 month	WINCHESTER while proceeding to Flushing, was attacked by enemy aircraft. The bombs dropped from 50 to 100 yards from the ship causing very minor hull damage and slight leaks in the oil fuel tanks. The main and auxiliary machinery was severely damaged by the fracture of cast iron fittings. Fighting Efficiency - Seriously impaired. The ship was immobilised by machinery damage.
VALENTINE 15th May, 1940	One Direct Hit one Near Miss 250 lbs. (approx.) direct action fuzed Bomb	Beached on territory later in enemy occupation	VALENTINE while in the River Schelde, Holland about one mile west of Terneuzen was attacked by enemy aircraft. The direct hit dropped down the after funnel causing severe damage to the upper deck over No.2 boiler room, and completely wrecking the boiler room which flooded. The engine room and No.1 boiler room commenced to flood slowly due to strained bulkheads. The near miss dropped in the sea abreast the forward magazine on the starboard side causing a hole in the ship's side of 20 ft. diameter above and below the waterline. The fore and aft bulkheads of the magazine were destroyed and all structure in the vicinity was buckled causing flooding of the remaining compartments on the fore side of the magazine. The magazine did not explode but a cordite fire was started. The ship was immobilised, grounded and finally abandoned.
SOMALI 15th May, 1940 D.N.C.4B/R20	One Near Miss 1,000 lbs. (approx) delay action fuzed Bomb	14 weeks	SOMALI while operating off the Norwegian coast at Mo, was attacked by enemy aircraft. The bomb fell abreast 'A' mounting and exploded a few feet to starboard. The side plating fractured with heavy indentations in the vicinity of the hole and structural damage was caused to bulkheads and decks at the fore end. The fore foot was displaced. The fore end aft to 30 station and No.1 magazine and pom-pom magazine were flooded. Fighting Efficiency - Impaired. The ship could only steam at reduced speed but all guns could be fired, with a reduced ammunition supply to the forward groups. The aerials were blown down and the W/T was out of action. REMARKS This incident emphasised the need for increased anti aircraft protection aft. The ship steamed over 1,000 miles to port at 11½ knots in a calm sea.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WHITLEY 19th May, 1940	Size and type unknown Bomb	Beached	WHITLEY was seriously damaged by bombs and beached between Nieuport and Ostend. No further information is available.
MALCOLM 20th May, 1940	Number unknown Near Miss direct action fuzed Bombs	4 days	MALCOIM while operating off the West Hinder Light was attacked by enemy aircraft. 4 near misses fell abreast the bridge on the starboard side, the nearest being 20 yards away, 6 near misses fell from abreast "X" gun to the stern, the nearest 5 yards away, while a third stick fell about 100 yards away on the starboard quarter. Minor structural damage on the starboard side from the engine room to the stern was caused by splinters, and minor fires were started. Fighting Efficiency - Slightly impaired. The W/T was put out of action by damaged aerials and the D.G. was cut by splinters.
VANSITTART 21st May, 1940	Size and type unknown Bomb	1 month	VANSITTART was attacked by enemy aircraft and sustained structural damage to the after superstructure decks and bulkheads. Fighting Efficiency - Impaired. All instruments and electrical circuits to 'X' and 'Y' guns were burnt.
KEITH 21st May, 1940	Number unknown Near Miss 500 lbs. (approx.) direct action fuzed Bombs and Machine gun attack	Nil	KEITH while lying alongside Felix Faure Quay, Dunkirk, embarking refugees was attacked by enemy aircraft. The bombs fell at an average distance of 20 yards from the ship causing minor damage only. The bridge and superstructure were holed by machine gun bullets and splinters. Fighting Efficiency - Not impaired.
FAME 22nd May, 1940	Eight Direct Hit 2 lbs. (approx.) delay action fuzed Shells	Nil	FAME sustained minor damage to hull, superstructure and machinery. Fighting Efficiency - Not impaired. The ship was ready to proceed in 14 hours.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WILD SWAN 22nd May, 1940	Near Miss size unknown direct action fuzed Bomb	1 week	WILD SWAN while on patrol off Boulogne was attacked by enemy aircraft sustaining minor structural damage by splinters above the waterline. Fighting Efficiency - Not impaired.
KEITH 23rd May, 1940	Near Miss 50 lbs. (approx.) direct action fuzed Bomb and Machine Gun	6 days	KEITH while lying alongside Quay Chanzy at Boulogne, evacuating troops was attacked by enemy aircraft. Minor structural damage was caused to the forecastle deck with the superstructure, bridges and upperworks generally riddled with machine gun bullets and splinters from near misses. Fighting Efficiency - Slightly impaired.
VIMY 23rd May, 1940	Near Miss Bomb. "Short" Shells Machine gun and Rifle Fire	Nil	VIMY while evacuating troops from Boulogne Harbour was attacked by enemy aircraft and simultaneously by German troops with mortars, machine gun and rifle fire. One bomb exploded on the jetty within 3 yards of the ship and a fire was started on board. Fighting Efficiency - Slightly impaired. The ship left harbour to return to Dover because of the fire and the many stretcher cases on board.
VENETIA 23rd May, 1940 D.N.C.4B/R22	Seventeen Direct Hit probably 7.5 inch direct action fuzed Shells. Machine gun and Rifle fire etc.	7 weeks	VENETIA was in Boulogne Harbour in company with VENOMOUS to embark troops when they were engaged by shore batteries, field guns, tanks, machine guns and snipers. Minor structural damage was caused by the hits, which were all on the superstructure and funnels, but splinter damage was serious. Fighting Efficiency - Seriously impaired. The main steam pipe was cut and speed reduced by 50% while guns were fired by local control only. The W/T T/S and bridge steering were put out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VENOMOUS 23rd May, 1940	Near Miss size unknown delay action fuzed Bomb size and type unknown Shell	1 week	VENOMOUS was about to enter Boulogne harbour when attacked by enemy aircraft. She sustained a near miss 20 ft. off starboard quarter. The bomb caused minor structural damage and splinter holes in the stern with slight damage to the starboard shaft. The D/G coil was cut and the D/F and A/S put out of action. While in Boulogne harbour VENOMOUS was engaged by shore batteries, field guns, tanks, machine guns and snipers. The top of main mast received a glancing blow, and main aerials and rigging were shot away. The W/T was put out of action by machine gun bullets. Fighting Efficiency - Slightly impaired.
FAME 23rd May, 1940	One Near Miss 250-500 1bs. type unknown Bomb	Nil	FAME was attacked by enemy aircraft and sustained a near miss about 10-20 yds. away on the port quarter. The stern of the ship was lifted and minor damage was caused in the tiller flat. The port and starboard steering motors seized up but after tightening the holding down bolts the starboard one was restarted. Fighting Efficiency - Slightly impaired. Turning was slower and no second steering unit was available. REMARKS This incident emphasised the need for even and firm tightening of holding down bolts to auxiliary machinery.
FIREDRAKE 23rd May, 1940	One Near Miss size and type unknown Bomb	Nil	FIREDRAKE while at Narvik was attacked by enemy aircraft and sustained a near miss about 20 ft. from ship. Splinter holes were made above and below the waterline aft. Fighting Efficiency - Not impaired.
WHITSHED 23rd May, 1940	Size and type unknown Bomb	l week	WHITSHED while operating off Boulogne was attacked by enemy aircraft. 'A' and 'B' gun roller paths were buckled and gun elevating gear and electric circuits were damaged. Fighting Efficiency - Seriously impaired.
WESSEX 24th May, 1940	Size and type unknown Bomb	Sunk	WESSEX while operating off Calais, was attacked by enemy aircraft and sunk. Details are not known.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VIMIERA 24th May, 1940	Number unknown Near Miss 110 lbs. (approx.) delay action fuzed Bombs	10 days	VIMIERA was attacked by enemy aircraft and near misses exploded beneath the ship, one pattern amidships and another towards the after end. Slight straining of the ship's structure took place and minor flooding occurred in the engine room from a fractured water pipe to the circulator. Fighting Efficiency - Impaired. The roller paths to the after 4 inch guns and port 5" machine guns were distorted and guns were difficult to train. Complete failure of electrical power occurred due to the fracturing of governor valve gear box to generators. REMARKS This incident emphasised the need for the design of a stronger governor box.
GREYHOUND 26th May, 1940	One Direct Hit 3" (approx.) H.E. delay action fuzed Shell	Nil	GREYHOUND was engaged by enemy shore batteries while shelling Calais. A shell struck the after starboard side of the H.A.D. which, at the time, was trained on the starboard bow, and minor structural damage was caused. Fighting Efficiency - Slightly impaired. The H.A.D. and A/S gear were both out of action through severed leads.
WOLFHOUND 27th May, 1940	Four Near Miss 250 lbs. delay action fuzed Bombs	10 days	WOLFHOUND while proceeding to Belgium to evacuate troops was attacked by enemy aircraft. A stick of four bombs fell off the port quarter about 20 ft. from the ship's side causing minor damage to auxiliary machinery but no structural damage. Although the cast iron feet to the port dynamo were cracked power was supplied continuously. Fighting Efficiency - Not impaired.
WHIRLWIND 27th May, 1940	Size and type unknown Bomb	Nil	WHIRLWIND was attacked by enemy aircraft and suffered minor damage resulting in a temporary reduction of speed. Fighting Efficiency - Not impaired.
WALKER 27th May, 1940	Size and type unknown Bomb	10 days	WALKER was attacked by enemy aircraft and suffered minor structural damage. The cast iron feet to the dynamos were fractured. Fighting Efficiency - Slightly impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WINDSOR 28th May, 1940	Size and type unknown Bomb	Ni.1	WINDSOR while engaged in the evacuation of Dunkirk was attacked by enemy aircraft and suffered minor damage to the hull and aerials. Fighting Efficiency - Not impaired.
WAKEFUL 29th May, 1940	One <u>Contact</u> <u>Torpedo</u> fired from E Boat	Sunk	WAKEFUL while proceeding at 20 knots off Kwinte Whistle Buoy was attacked by an enemy E boat. One torpedo hit amidships just forward of the boiler room and the ship broke in half. The two portions floated for some time with their "midship" ends submerged. REMARKS This incident emphasised the need for the provision of escape hatches at the fore end of the ship.
GRAFTON 29th May, 1940	One Contact Torpedo fired from E boat. Cause of second explosion unknown	Sunk	GRAFTON while in the vicinity of Kwinte Whistle Buoy rescuing WAKEFUL survivors was attacked by an enemy E boat. A torpedo struck on the port quarter just ahead of the port propellor, causing severe structural damage aft, but the ship was undamaged forward of the after bulkhead of the after magazine with main machinery and lighting still in action. Immediately afterwards an explosion in the vicinity wrecked the whole of the fore part of the bridge while shortly afterwards the ship was rammed by LYDD on starboard side abreast No.7 oil fuel tank, causing minor structural damage. The cause of the second explosion is not known. The crew abandoned ship and GRAFTON was sunk by gunfire from IVANHOE.
GRENADE 29th May, 1940	Size and type unknown Bomb	Sunk	This incident emphasised the fact that aluminium alloy scuttles appear to be too weak to withstand heavy shocks. GRENADE while in Dunkirk Harbour was attacked by enemy aircraft and was abandoned when on fire and in a sinking condition, after having been towed from the fairway. No further details are available.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
GREYHOUND 29th May, 1940	Two Near Miss size unknown direct action fuzed Bombs	3 weeks	GREYHOUND while at anchor off La Panne (Dunkirk) was attacked by enemy aircraft. The bombs dropped about 6 ft. from the starboard side, one abreast the 0.5 inch gun platform and the other abreast 'X' gun, causing minor auxiliary machinery damage and flooding, and splinter damage to starboard side of the hull and superstructure. Fighting Efficiency - Seriously impaired. The ship was eventually immobilised due to loss and contamination of feed water and the efficiency of the starboard 0.5 inch quadruple machine gun was reduced by 25%.
JAGUAR 29th May, 1940	Four Near Miss 250 lbs. (approx.) direct action fuzed Bombs and Machine gum	16 days	JAGUAR whilst evacuating troops from Dunkirk was attacked by enemy aircraft. The bombs fell about 10 yards off the port beam abreast the funnel causing minor damage to auxiliary machinery and flooding of oil fuel tanks. The port side suffered generally from splinters and the hull and superstructure were holed by machine gun bullets. Fighting Efficiency - Seriously impaired. The secondary lighting, W/T, 'X' mounting and the left guns of 'A' and 'B' mountings were out of action while the engine room and steering gear were temporarily out of action due to damaged steam pipes. REMARKS This incident emphasised the need for the modification of existing oil burning secondary lighting.
GALLANT 29th May, 1940	One Near Miss size unknown direct action fuzed Bomb	1 week	GALLANT while engaged in the evacuation of Dunkirk was attacked by enemy aircraft. A near miss bomb exploded about 10 yards from the stern. Minor structural damage occurred from splinters and minor electrical damage was caused. The tiller flat was flooded and the primary steering inoperative. Fighting Efficiency - Impaired. Speed and angle of helm were reduced.

NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
Near Miss size unknown direct action fuzed Bomb	2 weeks	INTREPID while engaged in the evacuation of Dunkirk was engaged by enemy aircraft. A near miss on the port side abreast 'B' gun caused minor splinter damage to the structure, auxiliary machinery and electrical equipment, the main steam pipe in No.1 boiler room being pierced. The forward magazine group was flooded and five fires were started, but they were soon under control. Fighting Efficiency - Impaired. All firing controls, gunnery and torpedo control circuits and the D.G. were out of
		action. 'B' gun was partially out of action due to hit on mantlet plate and the forwar armament supply was curtailed by flooding. Speed was reduced owing to No.1 boiler room being out of action.
Size and type unknown Bombs	11 days	SALADIN while approaching Dunkirk was bombed 10 times. Minor structural damage was caused by splinters and some ready-use cordite aft which was set on fire, was jettisoned Fighting Efficiency - Impaired.
Size and type unknown Bomb	2 weeks	ANTHONY while engaged in the evacuation of Dunkirk was attacked by enemy aircraft. Minor damage was caused to the aerials and depth charges and the turbine feet of the main engines were cracked. Serious vibration of machinery occurred when steaming at more than 14 knots.
		Fighting Efficiency - Seriously impaired. The ship was towed to port.
One Near Miss 250 lbs. (approx.)	Nil	BEAGLE while engaged in the evacuation of Dunkirk was attacked by enemy aircraft. A near miss struck the water about 12 yards from the starboard side abreast 'A' gun.
type unknown Bomb		Fighting Efficiency - Slightly impaired. The balance weight to 'A' gun was sheared.
Size and type unknown Bomb	Nil (See m Page 136)	SABRE while engaged in the evacuation from Dunkirk was attacked by enemy aircraft and suffered minor damage, mainly from fire. Fighting Efficiency - Not impaired.
	Near Miss size unknown direct action fuzed Bomb Size and type unknown Bombs One Near Miss 250 lbs. (approx.) type unknown Bomb Size and type unknown	Near Miss size unknown direct action fuzed Bomb Size and type unknown Bombs Size and type unknown Bomb One Near Miss 250 lbs. (approx.) type unknown Bomb Size and type unknown Bomb Nil (See #

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VIVACIOUS 31st May, 1940	Direct Hit Calibre and type unknown Shell	Nil (See # Page 136)	VIVACIOUS while evacuating troops from Dunkirk was hit by a shell fired from German army units advancing towards the coast. Details of damage are not available. Fighting Efficiency - Not impaired.
EXPRESS 31st May, 1940	Size and type unknown Bomb	1 week	EXPRESS while engaged in the evacuation from Dunkirk was attacked by enemy aircraft. Superficial damage was caused by splinters. Fighting Efficiency - Not impaired.
BASILISK 1st June, 1940	Direct Hit and Near Miss size unknown delay action fuzed Bomb	Sunk	BASILISK while embarking troops off La Panne was attacked by enemy aircraft. A direct hit on the port side of the after end of No.3 boiler room fractured the bulkhead between the boiler room and engine room, and cut main and auxiliary steam lines, thus putting all the machinery out of action. A second attack of near miss bombs burst in the water underneath the ship causing the ship's sides and deck to buckle in a position between the after end of the after torpedo tubes and the after superstructure. A third attack took place and the ship was straddled by hits and near misses. In about 3 minutes the ship sank, settling on the bottom on an even keel in about 4 fathoms. She was then abandoned and finally destroyed by WHITEHALL.
HAVANT 1st June, 1940	Direct Hit size and type unknown Bombs	Sunk	HAVANT while off Dunkirk received several direct hits when attacked by enemy aircraft. No further information is available.
KEITH 1st June, 1940	Direct Hit and Near Miss size unknown delay action fuzed Bombs	Sunk	KEITH while off Bray at No.8 Buoy was attacked by enemy aircraft. In the first attack two hits in the vicinity of the machinery spaces caused severe structural damage and flooding in the engine and after boiler room while near misses on the port caused the ship to list heavily to port. The ship was immobilised and was lying with one anchor down when the second attack took place. The stern rose sharply and the ship capsized to port. REMARKS This incident emphasised the need for the protection of exposed personnel on anti-aircraft guns and modification to the stowage of carley floats in a vertical position.

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NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED	
Near Miss size and type unknown Bomb	6 weeks including collision repairs	WORCESTER while engaged in the evacuation from Dunkirk was attacked by enemy aircraft and sustained minor damage from splinters. A collision later caused damage to the stern and the propellers. Fighting Efficiency - Impaired.	
Size and type unknown Bomb	l week	VIVACIOUS while engaged in the evacuation from Dunkirk was attacked by enemy aircraft and sustained minor damage. Fighting Efficiency - Not impaired.	
One Direct Hit two Near Miss 220 lbs. direct action fuzed Bombs	7 weeks	IVANHOE was in the entrance to Dunkirk Harbour when attacked by enemy aircraft. The direct hit occurred just abaft the forward funnel above the upper deck causing structural damage to the deck and bridge structure in the vicinity. Splinters from near misses damaged the ship's side causing slow flooding of Nos.l and 2 boiler rooms. Fighting Efficiency - Seriously impaired. Nos.l and 2 boiler rooms, W/T and the .5 inch machine guns were put out of action.	
Size and type unknown Bomb	1 week	SABRE while engaged in the evacuation of Dunkirk was attacked by enemy aircraft and sustained minor damage. Fighting Efficiency - Not impaired.	
Size and type unknown Bomb	8 days	ESK while engaged in the evacuation of Dunkirk was attacked by enemy aircraft and sustained minor damage from splinters in way of the oil fuel tanks. Fighting Efficiency - Slightly impaired.	
Direct Hits Possibly 11 inch but probably smaller Shells	Sunk	ACASTA while screening GLORIOUS from the attacks of SCHARNHORST and GNEISNAU, when returning from Norway was hit by shellfire. One shell passed through the forward mess deck and exploded, causing structural damage to the hull and pom-pom magazine. The ship was later immobilised by a direct hit in the engine room and listed first to port, then to starboard, finally sinking by the stern.	
	Near Miss size and type unknown Bomb Size and type unknown Bomb One Direct Hit two Near Miss 220 lbs. direct action fuzed Bombs Size and type unknown Bomb Size and type unknown Bomb Direct Hits Possibly 11 inch but probably smaller	Near Miss size and type unknown Bomb One Direct Hits Possibly 11 inch but probably smaller Near Miss 220 Ibs. Adaptate and type unknown Bomb 6 weeks including collision repairs 7 weeks 1 week # 1 week # 2 weeks 1 week # 2 weeks 1 week # 2 weeks 1 weeks 2 weeks 2 weeks 1 weeks 2 weeks 3 weeks 4 weeks 5 weeks 4 weeks 4 weeks 5 weeks 6 weeks 1 week 2 weeks 4 weeks 5 weeks 6 weeks 1 week 2 weeks 4 weeks 5 weeks 6 weeks 1 week 2 weeks 4 weeks 5 weeks 6 weeks 1 week 2 weeks 4 weeks 5 weeks 6 weeks 1 week 2 weeks 8 days 8 days 8 days 8 days	

\$HIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ARDENT 8th June, 1940	Direct Hit possibly ll inch but probably smaller Shells	Sunk	ARDENT while screening GLORIOUS from the attacks of SCHARNHORST and GNEISNAU, when returning from Norway was hit by shellfire and finally sunk.
BOADICEA 10th June, 1940 D.N.C.4B/R26	Three Direct Hit Two 250 lbs. One size unknown delay action fuzed Bombs	7 ¹ / ₂ months	BOADICEA while operating with AMBUSCADE and BULLDOG off the French coast was attacked by enemy aircraft. 1st Hit perforated the upper deck on the starboard side and entered the engine room where it burst just above the outer bottom causing structural damage and perforation of the outer bottom. 2nd Hit perforated the ship's side starboard at the upper deck edge and entered the engine room causing severe structural damage when it burst just above the outer bottom. 3rd Hit passed out through the ship's bottom in the after engine room without exploding. The effect of these hits caused the immediate flooding of No.2 boiler room and the engine room and wrecked the main machinery. Fighting Efficiency - Seriously impaired. The steering gear was out of action and the ship was immobilised due to flooded and wrecked machinery spaces. The main armament could only be fired under local control.
BULLDOG 10th June, 1940 D.N.C.4B/R26	Three Direct Hit 110 lbs. delay action fuzed Bombs	5 weeks	BUILDOG while operating with AMBUSCADE and BOADICEA off the French coast was attacked by enemy aircraft. Hit No.1 penetrated the fore part of the engine room severing the main exhaust steam pipe, and passed out through the ship's side without exploding. The engine room was not habitable for more than 20 minutes due to escaping steam, thus resulting in a loss of speed. Hit No.2 penetrated the upper deck and came to rest inside No.3 boiler without exploding. Hit No.3 pierced the fore side of the after funnel and passed into No.3 boiler where it exploded 10 minutes later wrecking No.3 boiler room. Fighting Efficiency - Seriously impaired. Speed was reduced, the main W.T. was temporarily out of action and the armament was under local control only.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
AMBUSCADE 10th June, 1940	Direct Hit possibly 37 mm. Shell	3 days	AMBUSCADE while in company with BOADICEA and BULLDOG off the French coast was hit by enemy shellfire and sustained minor damage to the hull and superstructure and splinter damage from shorts. Fighting Efficiency - Not impaired.
FIREDRAKE 12th June, 1940	Near Miss size and type unknown Bomb	1 week	FIREDRAKE was attacked by enemy aircraft and a near miss bomb fell about 20 ft. from the ship's side causing minor damage from splinters above and below the waterline just after and forward of amidships. The port steering motor was put out of action. Fighting Efficiency - Not impaired.
FAME 12th June, 1940	Size and type unknown Bomb	1 week	FAME when attacked by enemy aircraft sustained minor splinter damage to the hull and superstructure. Fighting Efficiency - Impaired. A' gun was out of action.
BEAGLE 12th June, 1940	Size and type unknown Bomb	4 days	BEAGLE was attacked by enemy aircraft and received minor structural damage. Fighting Efficiency - Slightly impaired. R gun was out of action.
WALKER 12th June, 1940	Near Miss size and type unknown Bombs	12 days	WALKER when attacked by enemy aircraft sustained minor damage to auxiliary machinery from near misses. A leak occurred in No.3 oil fuel tank and excessive vibration took place in the port shaft. Fighting Efficiency - Impaired.
DIAMOND 17th June, 1940	Size and type unknown Bomb	Nil	DIAMOND was attacked by enemy aircraft and sustained minor damage from splinters. Fighting Efficiency - Not impaired.
JERVIS 3rd July, 1940	Size and type unknown Bomb	Nil	JERVIS was attacked by enemy aircraft off Malta. No further details are available.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WHIRLWIND 5th July, 1940	One probably Contact Torpedo fired from submarine	Sunk	WHIRLWIND when 200 miles west of Scillies forming part of a convoy escort was attacked by an enemy submarine. The explosion occurred just forward of the bridge and structure forward of this disappeared and Nos. 3 and 4 oil fuel tanks flooded immediately. Sever structural damage to the deck and hull plating in way of the after bulkhead of the engine room occurred. Slow flooding of the engine room and No. 1 boiler room also occurred. The ship was abandoned and was finally sunk about $5\frac{1}{2}$ hours afterwards by torpedo and shell fire from WESTCOTT.
FAME 6th July, 1940	One Near Miss 200 lbs. (approx.) direct action fuzed Bomb	3 months	FAME while searching for H.M.S. SHARK 28 miles west of Scotstoun Head was attacked by enemy aircraft. A near miss bomb exploded on the water about 5 ft. from the port side abreast 'Y' gun blowing a large hole in the ship's side and causing severe structural damage to the hull plating in the vicinity. Immediate flooding of the after magazine, shell room and ward room occurred with slow flooding in the tiller flat. Serious splinter damage was caused from the tiller flat aft to the bridge. Cordite fires which started on the port side aft, were quickly extinguished. Fighting Efficiency - Seriously impaired. 'Y' gun was put out of action by splinter damage and 'X' gun was immobilised due to injuries of the crew, while both 'X' and 'Y' magazine group were flooded. Splinters cut the D.G. coil and telemotor leads to after steering position.
ESCORT 11th July, 1940	One Contact Torpedo fired from submarine	Sunk	ESCORT while forming an asdic screen, with FORESTER and WRESTLER in company, was struck by a torpedo on the starboard side between Nos.1 and 2 boiler rooms. The explosion caused a large hole in the upper deck over Nos. 1 and 2 boiler rooms, and a hole in the side plating about 20 ft. long extending from 4 ft. below the upper deck to below the bilge keel. Nos.1 and 2 boiler rooms were shattered and flooded immediately while slow flooding of No.3 boiler room commenced through the badly damaged after bulkhead of No.2 boiler room. The forward bulkhead to No.1 boiler room was destroyed and all compartments forward of this to No.41 bulkhead flooded immediately. About 4 hours later the ship developed a 30° list to port and was abandoned 2 hours after this. Some 8½ hours after being struck the ship turned over on her beam and broke her back between Nos.1 and 2 boiler rooms finally sinking ½ hour later.

SHIP	NATURE OF	TIME OUT OF	
DATE OF INCIDENT	ATTACK	ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VANESSA 14th July, 1940 D.N.C.4B/R48	Near Miss 250 lbs. and 50 lbs. mixed delay action fuzed Bombs	4 months	VANESSA while escorting a convoy 3 miles off Dover was attacked by enemy aircraft. 5 or 6 near miss bombs were dropped abreast 'B' gun, 30 ft. to port amidships and 20 ft off the port quarter causing minor damage to hull structure and straining the ship generally. The main and auxiliary machinery suffered damage from cracked castings and the A.S. office, No.3 store and the forward magazine group were flooded with oil fuel and water. All electrical power was lost through damage to the dynamos and all the secondary lighting was damaged.
			Fighting Efficiency - Severely impaired. Ship was immobilised due to the damage to the main and auxiliary machinery, and the boiler room was inoperative through leakage of steam. The vessel was taken in tow to port.
HAVOCK 19th July, 1940 D.N.C.4B/R161	One Near Miss estimated 250 lbs. type unknown Bomb	8 weeks	HAVOCK while proceeding at full speed 3 miles south of Gavdi (Mediterranean) was attacked by enemy aircraft. The bomb fell about 4 ft. from the port side abreast No.2 boiler room causing damage to the hull structure and flooding in the boiler room due to strained rivets. Minor damage to the boiler feet and auxiliary machinery occurred. Fighting Efficiency - Slightly impaired.
GRIFFIN 19th July, 1940	One Near Miss 250 lbs. approx. delay action fuzed Bomb	2 weeks	GRIFFIN while moored to a Buoy was attacked by enemy aircraft. A near miss fell on the starboard side forward abreast the central store causing structural damage to the hull and bulkheads from stem to 33 station, port and starboard, and slow flooding of central store and petrol compartment. Fighting Efficiency - Severely impaired. Speed was reduced to 20 knots and the seagoing efficiency was impaired.
BEAGLE 19th July, 1940	Near Miss 250 lbs. and 50 lbs. delay action fuzed Bombs	Nil (See Page 141)	BEAGLE was attacked by enemy aircraft 2 miles from Admiralty pier Dover. One bomb dropped 30 ft. to starboard abreast the bridge causing minor structural damage in the vicinity of 61 station and fracturing the cast iron fittings to three boiler room fans on the starboard side. Fighting Efficiency - Severely impaired. No.1 boiler room was out of action.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BEAGLE 20th July, 1940	Near Miss 250 lbs. and 50 lbs. delay and direct action fuzed Bomb	3 weeks	BEAGLE while on passage from Dover to Devonport was attacked by enemy aircraft. Near Misses occurred 10-200 yds. from the ship causing straining to 61 frame and leaking in No.1 boiler room. The port steering unit was also damaged. Fighting Efficiency - Slightly impaired. Electric leads to 'B' gun were cut.
BRAZEN 20th July, 1940	Six Near Miss size unknown delay action fuzed Bombs	Sunk	BRAZEN while escorting a Channel convoy off Dover was attacked by enemy aircraft. A salvo of 2 large and 4 smaller bombs dropped close to the port beam, one bursting underneath the keel in the wake of the engine room, another close alongside on the water surface to starboard and the remainder at unknown positions. Severe structural damage was caused to the hull structure abreast and over the engine room and No.2 boiler room, the keel being split over this area. Major damage was also caused by splinters which pierced the shell plating abreast the engine room and No.2 boiler room, and also the forward bulkhead to this compartment. The engine room and No.2 boiler room were flooded immediately and No.1 boiler room flooded rapidly. An oil fuel fire started in No.2 boiler room. Steering gear and all lighting were immediately put out of action and the W/T was immobilised through damage to the aerials The ship was immobilised and, while being taken in tow by BOREAS, broke her back, two hours after the bombs had dropped. The after end sank immediately and the fore end was eventually sunk by gunfire.
BOREAS 25th July, 1940 D.N.C.4B/R37	Near Miss size unknown delay action fuzed two Direct Hit 110 lbs. delay action fuzed Bombs	6 months	BOREAS left Dover to engage enemy 'E' boats and when about 3 miles off the port was attacked by enemy aircraft. In the first attack near misses fell to port and starboard abreast the after engine room, the nearest being 10 ft. away. The ship was temporarily immobilised through the disabling of boiler room fans and dynamos, and slow flooding in the engine room through a cracked circulator inlet, but 10 minutes later, after temporary repairs, the ship proceeded under hand steering at 17 knots. The first salvo of the second attack fell 20-30 ft. ahead of ship and the third salvo fell 20-30 ft. abaft the after end. In the second salvo, however, two direct hits were scored on the bridge, one of which passed out of the superstructure port without exploding. Severe structural damage was caused to the bridge and forward superstructure and minor structural damage to the bulkheads at the fore and after ends from the near misses. Minor flooding occurred in the torpedo head room, engine room and central store Fighting Efficiency - Severely impaired. The ship was immobilised due to the failure of boiler room fans and dynamos, and the W/T was out of action. She was finally taken in tow.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BRILLIANT 25th July, 1940 D.N.C.4B/R29	Two Direct Hit several Near Miss 250 lbs. and 50 lbs. mixed delay action fuzed Bombs	7 weeks	BRILLIANT left Dover to engage enemy 'E' boats and was attacked by aircraft shortly after this engagement. Several near misses were sustained and two direct hits, one of which passed through the wardroom and shellroom, the other through the steward's mess and tiller flat. Both these passed out through the side plating without exploding. Immediate flooding of the tiller flat took place and of the after magazine group where the flooding extinguished a minor fire which had been started. Castings of main and auxiliary machinery sustained damage.
			Fighting Efficiency - Severely impaired. 'Y' gun was out of action, and the ship was taken in tow due to the steering gear being out of action.
			REMARKS This incident emphasised the necessity for modification to the design of the fan engine platform.
MONTROSE 27th July, 1940 D.N.C.4B/R35	Near Miss 500 lbs. delay action fuzed Bombs	9 months	MONTROSE while acting as destroyer and A.A. escort to M.S. trawlers was attacked by enemy aircraft. Three attacks were made, the first attack causing no damage to the ship. In the second attack the bombs fell about 10 yards to port abreast the after superstructure shaking the ship considerably and causing minor damage aft. In the third attack the bombs dropped close to the starboard side abreast the after tubes putting the steering gear and the starboard engine unit out of action and causing cracks in the castings to turbine feet and auxiliary machinery. Minor structural damage occurred to decks and bulkheads in way of the gland compartment and engine room, and corrugation of the outer bottom plating took place below the W.L.
			Fighting Efficiency - Seriously impaired. The W/T and steering gear was out of action and all electrical power was lost. The engine room was abandoned because of escaping steam and the ship was immobilised and had to be towed to port.
			The engine room was abandoned because of escaping steam and the ship was immobilised

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WREN 27th July, 1940	Two Direct Hit (or very near miss) size unknown (probably as MONTROSE) delay action fuzed Bombs	Sunk	WREN while in company with MONTROSE acting as A.A. escort to M.S. trawlers was attacked by enemy aircraft. One or two bombs (either direct hits or very near misses) fell on the starboard side abreast the ward room, causing severe damage to all bulkheads in the vicinity and the structure abaft the engine room. There were many other near misses and the ship broke her back. The after end sank in 3 minutes and the fore end sank 15 minutes later.
WALPOLE 27th July, 1940	Two Near Miss size unknown delay action fuzed Bombs	7 weeks	WALPOLE while at No.7 Buoy in Dover Harbour was attacked by enemy aircraft. The first bomb struck the water about 30 ft, to port abreast the after steering position and the second bomb about 30 ft, directly astern. Minor buckling to No.97 bulkhead occurred and one peace tank was strained. The cast iron feet to port L.P. and H.P. turbines and castings to various auxiliary machinery units were fractured and a temporary loss of electrical power was sustained. Fighting Efficiency - Seriously impaired.
			The speed was reduced to 10 knots.
CODRINGTON 27th July, 1940	One Direct Hit size and type unknown Bomb	Grounded	CODRINGTON while lying alongside SANDHURST in Dover Harbour was attacked by enemy aircraft. A bomb hit the after end resulting in her back being broken and the subsequent grounding of the after end from No.3 gun to the stern. No further details are available.
DELIGHT 29th July, 1940	Direct Hit and Near Miss size unknown direct action fuzed Bomb	Sunk	DELIGHT was 20 miles S.S.W. of Portland Bill when attacked by enemy aircraft. The first salvo of three bombs fell close to the ship with no appreciable effect but one bomb of the second salvo hit the ship a glancing blow on the port side at the break of forecastle. This bomb caused structural damage to the ship's side and also considerable splinter damage. A serious fire started in the low power room and this was helped by the escape of oil fuel from damaged tanks. The main steam pipe was fractured, and all lighting failed, while the forward magazine group was probably flooded. About 23/4 hours after the commencement of the action a big explosion occurred forward and the ship sank shortly afterwards.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED	
WHITSHED 31st July, 1940 D.N.C.4B/R44	One Contact Mine 14 fathoms	19 weeks	WHITSHED struck a mine in the vicinity of the asdic dome while on night patrol off Harwich. Severe structural damage occurred forward of 39 bulkhead, the fore end collapsed and the stem dropped about 6½ ft. Aft of 39 bulkhead the ship remained watertight with only minor structural damage just aft of the main engine room. Immediate flooding occurred on the lower deck and all compartments below from 39 bulkhead to the stem. Fighting Efficiency - Seriously impaired. The A.S. was destroyed and gyro-compass and D.G. damaged. All oil fuel supply from forward was lost and the ship could only steam at 8 knots astern.	
WINDSOR 11th Aug., 1940 D.N.C.4B/R30	One Direct Hit 250 lbs. delay action fuzed several Near Miss 25 lbs. direct action fuzed Bombs	9 weeks	WINDSOR while escorting minesweepers was attacked by enemy aircraft in a position 4 cables eastward of Botany Buoy. Two attacks took place and several near misses were sustained varying from 2 ft. to 100 ft. from the ship abreast the machinery spaces. A direct hit near the edge of the upper deck, level with the after end of the after superstructure, pentrated through the deck and down through the shell room, finally passing out through the ship's side about 3 ft. below the waterline exploding clear of the ship. Minor structural damage occurred in the path of the bomb and immediate flooding of the after shell room, magazine and wardroom took place. The near misses caused minor damage to the structure abreast the machinery spaces and the sliding feet to the turbines were fractured. The auxiliary machinery suffered minor damage due to fracture of castings and port dynamo was put out of action. Lighting was maintained by the starboard dynamo. Fighting Efficiency - Seriously impaired. The ship maintained a speed of 20 knots throughout the action.	
SCIMITAR 11th Aug., 1940	Ten-Fifteen Near Miss direct action fuzed Bombs	4 days	SCIMITAR was at anchor in Portland Harbour when attacked by enemy aircraft. the nearest bomb dropped 20 yards away causing splinter holes in the hull and superstructure and minor fires which were started were soon extinguished. Fighting Efficiency - Slightly impaired. Electric leads suffered minor damage and the D.G. cable was cut.	
SKATE 11th Aug., 1940	Size and type unknown Bomb	Nil Repaired as and when ship was available	SKATE was damaged during an air attack on Portland and suffered minor damage to the bridge structure. Fighting Efficiency - Not impaired.	

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NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
Four Near Miss size and type unknown Bombs	l week (including maintenance repairs)	ESK received damage to the rudder plating when four medium sized bombs fell astern of her during an air attack. Fighting Efficiency - Not impaired.
Size and type unknown Bomb	l month including refit	WATCHMAN was attacked by enemy aircraft and suffered minor damage from near misses, the 'A' brackets being loosened. Fighting Efficiency - Impaired.
Type unknown Mine 100 fathoms. Torpedo from own forces	Sunk	HOSTILE while in the Mediterranean near Cape Bon Light (Tunis) sustained an explosion beneath the ship just abaft the engine room, her speed at the time being 30 knots. Major structural damage occurred, a hole being blown in the side plating port, abreast the Engineer's Store with a large portion of the plating folded outwards extending approximately 15 ft. aft. The after torpedo tubes were blown overboard with the upper deck bulged up in the vicinity and split in one place. The after bulkhead of the engine room was destroyed and immediate flooding of the engine room and the after oil fuel tanks took place. Further flooding took place aft and the vessel broke her back. The ship was finally sunk by a torpedo from HERO.
One Direct Hit three Near Miss size unknown delay action fuzed Bombs	13 weeks	ACHERON while lying alongside the North West Wall in Portsmouth Dockyard was hit during an enemy air attack. The direct hit occurred on the upper deck above the propellers to starboard of the middle line and it exploded just below the upper deck wrecking all structure aft of the after bulkhead of the wardroom. The shafts, propellers and rudder were undamaged. Immediate flooding of the after end occurred. The three near misses were in the vicinity of the stern. Fighting Efficiency - Seriously impaired. The steering engine and auxiliaries were destroyed and the D.G. cable severed. "Y" gur was out of action and the H.P. and L.P. circuits aft of "X" gun were destroyed.
Size unknown delay action fuzed Bomb	9 days	BUILDOG while lying outside of ACHERON in Portsmouth Dockyard during an air attack, sustained minor damage from splinters. Fighting Efficiency - Not impaired.
	Four Near Miss size and type unknown Bombs Size and type unknown Bomb Type unknown Mine 100 fathoms. Torpedo from own forces One Direct Hit three Near Miss size unknown delay action fuzed Bombs Size unknown delay action	Four Near Miss size and type unknown Bombs Size and type unknown Bombs Size and type unknown Bomb Type unknown Mine 100 fathoms. Torpedo from own forces One Direct Hit three Near Miss size unknown delay action fuzed Bombs Size unknown delay action Size unknown delay action fuzed Bombs Size unknown delay action

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BEAGLE August, 1940	Size and type unknown Bomb	6 days	BEAGLE when attacked by enemy aircraft off Portland Bill, sustained minor damage. Fighting Efficiency Not impaired.
EXPRESS 31st Aug., 1940 D. N.C.4B/R31	One Moored Contact Mine	13 months	EXPRESS was proceeding towards the Dutch coast in company with ESK and IVANHOE when an explosion occurred abreast "B" gun. The fore end of the ship, back to Nos. 1 and 2 oil fuel tanks completely disappeared, together with side plating, port and starboard, back to approximately the fore end of the bridge structure. Immediate flooding took place in these areas, but aft of the forward bulkhead of No.1 boiler room the ship was watertight. Fires, which started in the wheelhouse and sick bay, and which were aggravated by oil fuel which had been sprayed over the fore end by the explosion were quickly got under control. The ship was temporarily immobilised, but main engines, and electrical power remained in action. Fighting Efficiency - Seriously impaired. The forward armament group was destroyed and W/T, T.S. and D.G. were all out of action. The ship was finally taken in tow, stern first. REMARKS This incident emphasised the need for more sawdust and sand to be carried and distributed throughout the ship.
ESK 31st Aug., 1940 D.N.C.4B/R31	Two Moored Contact Mines	Sunk	ESK when proceeding to the aid of EXPRESS suffered an explosion forward. About 15 minutes later a larger explosion occurred amidships. The vessel then appeared to break in two, and sank immediately.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
IVANHOE 31st Aug., 1940 1st Sept., 1940 D.N.C.4B/R31	Two moored contact mines, and torpedo from own forces	Sunk	IVANHOE while proceeding with ESK and EXPRESS towards the Dutch coast, suffered an explosion off the port quarter. This explosion damaged the keel and hull plating just forward of the after superstructure, the shafts were distorted and the oil fuel tanks aft were open to the sea. Another explosion occurred under the bow, when IVANHOE went to the aid of EXPRESS. Bottom plating, mainly on the starboard side, was holed between 9 and 27 bulkheads, and a fire started in the petrol compartment, which necessitated the flooding of the forwar magazine group. Flooding from sea occurred forward of 40 bulkhead, between 134 and 148 bulkheads, below the lower deck, and in the engine room. Steam could not be raised due to the contamination of oil fuel. About 24 hours after the second explosion steam was again raised and the vessel steamed astern at 7 knots. Two hours later the shafts fractured, and after 6 hours the ship began to settled down. The engine room started to flood 6 hours later, and the ship was finally abandoned. 30 minutes after being abandoned, IVANHOE was bombed by enemy aircraft and listed heavily to port, with her back broken, and down 8 ft. by the stern. She was finally torpedoed by KELVIN and sunk.
ATHERSTONE 11th Sept.,1940 D.N.C.4B/R32	One Direct Hit 250 kgm direct action fuzed. Two Direct Hit 50 kgm delay action fuzed Bombs	4 months	ATHERSTONE while escorting a convoy off Ramsgate was attacked by enemy aircraft, and three direct hits were sutained. Hit No.1 struck the port side of the signal deck and the bomb passed out through the ship's side, exploding in the sea. Hit No.2 occurred on the starboard side of the signal deck. It pierced the superstructure, passed into No.1 boiler room, and exploded near the ship's side starboard. The starboard side of the boiler room was wrecked, and a hole was blown in the side plating. Serious splinter damaged was caused. Hit No.3 occurred on the upper deck above No.1 boiler room near the port side. The upper deck and side were blown away in the vicinity of the burst, the port side of No.1 boiler room was wrecked, and severe splinter damage occurred. Hits 2 and 3 flooded Nos. 1 and 2 boiler rooms immediately. Fighting Efficiency - Seriously impaired. The vessel was immobilised, with Nos. 1 and 2 boiler rooms out of action. The after 4 inch guns could be fired in local control only. She was towed to port.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HOLDERNESS 16th Sept.,1940	One Non- contact Acoustic Mine 9 fathoms	6 days	HOLDERNESS was proceeding in the North Sea at 20 knots, when an explosion occurred ten yards off the port quarter. The sliding feet of the port and starboard H.P. turbines were damaged, and some castings of auxiliary machinery were fractured. Only minor structural damage was sustained aft. Fighting Efficiency - Slightly impaired. The vessel was able to steam, and could have remained in action.
INGLEFIELD 23rd Sept.,1940 D.N.C.4B/R118	One Direct Hit 7.5 inch direct action fuzed Shell (French shore batteries)	Nil	INGLEFIELD while in action off Dakar was struck by a shell fired from a French shore battery. The shell struck the side plating about 5 ft. below the upper deck at 156 station, causing damage to cabin bulkheads, and minor splinter damage. Minor flooding occurred in way of the explosion. Fighting Efficiency - Slightly impaired. The after ammunition supply was temporarily reduced. REMARKS This incident emphasised the need for destroyers to be allowed at least two high candlepower watertight lamps (divers), and for electric leads from steering motor starter in the engine room to the motors to be run low down in the ship, e.g. through shaft tunnels.
FORESIGHT 23rd Sept.,1940	Two Direct Hit calibre unknown delay action fuzed Shells	Nil	FORESIGHT sustained two direct hits, one through the forward superstructure and another through the ship's side into the main W/T office. Minor damage occurred in way of the explosion of second shell, and the W/T office was damaged. Fighting Efficiency - Slightly impaired. The W/T was out of action.
VETERAN 26th Sept.,1940	One Non- Contact Acoustic Mine	8 days	VETERAN was proceeding at 22 knots off Barrow Deep L.V. when an explosion occurred on the starboard beam abreast 'X' gun. No structural damage occurred but minor damage was caused to auxiliary machinery. Fighting Efficiency - Not impaired.
			righting biliciency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HAMBLEDON 7th Oct., 1940 D.N.C.4B/R39	One Non-Contact Acoustic Mine 15 fathoms	7 months	HAMBLEDON while operating off Dover sustained an explosion slightly to starboard of the middle line in the vicinity of the "A" brackets. The hull plating and internal structure abaft the cut up was severely damaged and the port and starboard "A" brackets were fractured. The after end immediately flooded below the lower deck. The steering gear, auxiliary machinery and electrical fittings at the after end were badly damaged and vessel could not be steered.
			Fighting Efficiency - Severely impaired. The vessel was immobilised due to the fracture of the 'A' brackets and distortion of the main shaft. The after 4 inch mounting was out of action and the magazine group flooded. In severe weather the vessel would have been unseaworthy.
JERSEY 11th Oct., 1940 D.N.C.4B/R43	One Non- Contact Acoustic Mine 8 fathoms	15 days	JERSEY having sailed from Sheerness was about 400 yards from the East Knob Buoy when an explosion occurred about 35 yards on the port side abreast the fore end of the bridge. Minor flooding and structural damage occurred at the fore end and minor damage was caused to auxiliary machinery and lighting. Fighting Efficiency - Slightly impaired.
ZULU 11th Oct., 1940	One Non- Contact Acoustic Mine 19 fathoms	13 weeks	The gyro compass and fire control instruments were out of action. ZULU was proceeding off the Beamer Rock in the Firth of Forth when an explosion occurred about 50 ft. to starboard abreast 'Y' gun. Minor structural damage and minor leaks in oil fuel tanks occurred and some auxiliary machinery castings were fractured. Fighting Efficiency - Slightly impaired. Reduction of speed due to damaged machinery and rate of fire of after guns reduced.
IMPERIAL 11th Oct., 1940	One Contact Moored Mine 150 fathoms	25 weeks	IMPERIAL was proceeding 15 miles south of Delimara at 27 knots when an explosion occurred under the stern. Severe structural damage occurred abaft the after cut-up, the rudder was destroyed, port 'A' bracket fractured and the after end flooded immediately. Fighting Efficiency - Seriously impaired. Ship was able to steam at 10 knots, but due to damaged steering she was taken in tow. The after magazines were flooded and out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
COSSACK 14th Oct., 1940	One Direct Hit calibre and type unknown Shell	12 days	COSSACK while on operations sustained a direct hit on side plating starboard, beneath the waterline in way of the after steering flat causing minor structural damage and flooding. Fighting Efficiency - Slightly impaired.
VENETIA 19th Oct., 1940	One Contact Mine	Sunk	VENETIA while operating 3 cables from the East Knob Buoy struck a mine. The explosion occurred under the vessel in way of the engine room and caused the vessel to break in two, the two halves floating for a short while before sinking.
KIMBERLEY 21st Oct., 1940	One Direct Hit 5 inch = 7 inch direct action fuzed Shell fired from shore battery	10 days	KIMBERLEY after sinking an Italian destroyer engaged the shore batteries off Harmel and sustained a direct hit on the port side of the engine room. A hole was made in the side plating just above the waterline and minor structural damage occurred in the vicinity of the explosion. Splinters caused severe damage to pipe lines and electrical circuits in the engine room and the port main steam pipe was pierced. Fighting Efficiency - Seriously impaired. Vessel was temporarily immobilised but the starboard engine was restarted and the vesses steamed for 35 minutes at 15 knots with the engine room evacuated, finally having to stop due to loss of feed water. REMARKS This incident emphasised the need for fire and bilge pumps to have alternative supply of steam so that should one pipeline be isolated a cross connection can be made.
HOTSPUR 21st Oct., 1940	Rammed Submarine	4 months	HOTSPUR while operating in the Mediterranean, rammed an Italian submarine. The fore end structure below the lower deck was crushed for 36 ft. and flooding took place over 48 ft. with minor flooding above the lower deck. The rudder was also damaged and the asdic gear wrecked. Fighting Efficiency - Seriously impaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WALPOLE 28th Oct., 1940 D.N.C.4B/R54	One Non- Contact Acoustic Mine 10 fathoms	22 weeks	WALPOLE was proceeding to Sheerness at 12 knots when an explosion occurred about 15 ft. to starboard abreast the after oil fuel tanks. Minor damage was caused to the side, bulkhead and deck plating and a minor oil fuel leak occurred in the engine room. The cast iron feet of the main engines were fractured and extensive damage was caused to the auxiliary machinery. Minor flooding took place in the after magazine. Fighting Efficiency. The vessel was immobilised, with all electrical power lost. "X" and "Y" mountings were out of action and the torpedo tubes were displaced.
ANTELOPE 2nd Nov., 1940	Rammed Submarine	3 weeks	ANTELOPE while operating in the Western Approaches, rammed an Italian submarine. The side plating abreast the forward oil fuel tanks was buckled and leaking and a small split occurred in the plating below the waterline abreast the machinery spaces. Fighting Efficiency - Slightly impaired. Endurance was reduced, due to contaminated oil fuel.
INTREPID 2nd Nov., 1940	One Non- Contact type unknown (probably acoustic) Mine	7 weeks (including refit)	INTREPID suffered an explosion off the starboard quarter causing minor structural damage and putting the main engines temporarily out of action. Fighting Efficiency - Impaired. The vessel was temporarily immobilised.
WINCHESTER 8th Nov., 1940 D.N.C.4B/R55	One Non- Contact Acoustic Mine 10 fathoms. Four Near Miss 500 lbs. direct action fuzed Bombs	7 months	WINCHESTER was escorting a convoy 1 mile N.E. of Swin L.V. at 22 knots, when an explosion occurred 25 yards to starboard, abreast after end of engine room. About twenty minutes after the mine explosion four bombs fell within 50 yards of the ship, shaking her severely, and adding to the damage caused by the mine. The mine explosion put the main machinery out of action, and extinguished the main lighting. The side plating, starboard, was dished from 110 to 149 stations and minor damage was caused to internal structure from fore end of engine room back to the steering compartment. The cast iron sliding feet, and casings of L.P. and H.P. turbines port and starboard were fractured, and serious damage occurred to auxiliary machinery castings. Serious leakage from the oil fuel tanks internally was caused, almost completely flooding the after 4 inch magazine, and causing minor flooding in the engine room. Fighting Efficiency - Seriously impaired. The vessel was immobilised, with power and lighting lost, and was towed to Sheerness.

SHIP	NATURE OF	TIME OUT OF	DUES ACCOUNT OF DAMAGE AND LESCONS LEADING
DATE OF INCIDENT	ATTACK	ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
CATTISTOCK 10th Nov., 1940	One Near Miss size and type unknown Bomb	l day	CATTISTOCK was attacked by enemy aircraft and suffered superficial damage, caused by bomb splinters. Fighting Efficiency - Not impaired.
VEGA 11th Nov., 1940 D.N.C.4B/R40	One Non-Contact Acoustic Mine 11 fathoms	2 years including 15 months permanent damage repairs	VEGA was escorting a convoy at 15 knots when an explosion occurred 10 yards to starboard abreast the engine room. The side plating from abreast the bridge back to the after end suffered minor damage due to dishing and buckling etc., and minor internal structural damage was caused. The sliding feet and casings of the L.P. and H.P. turbines, port and starboard, were fractured and serious damage occurred to the auxiliary machinery castings. Nos.l and 2 boilers were put out of alignment. Minor flooding which occurred was controlled by steam ejector and fire and bilge pump. Fighting Efficiency - Severely impaired. Main lighting and power was lost and guns could only be fired in local control. The ship was immobilised and taken in tow. REMARKS This incident emphasised the need of upper deck control of the auxiliary steam bulkhead valve at the forward end of the engine room, and for an additional fire and bilge pump, or alternatively, suction and discharge valves on auxiliary feed pumps, to enable them to be used as bilge pumps.
DECOY 13th Nov., 1940	One Direct Hit 100 kgm delay action fuzed Bomb	10 weeks	DECOY while in harbour at Alexandria was attacked by enemy aircraft. A bomb struck the blast screen of 'X' gun and exploded whilst passing through the upper deck. Serious structural damage was caused within 12 ft. radius of the explosion, and serious splinter damage was caused aft, including holes in the outer bottom on the port side. A fire started in the after magazine, and the after magazine group was flooded as a precautionary measure. Leads to the port telemotor and steering motor were cut, and 'Y' gun was put out of action. Fighting Efficiency - Seriously impaired. REMARKS This incident emphasised the need for the spindle of the cross-connecting sluice, between the magazine and shell room to be extended to deck over, to facilitate easy opening of valve in emergency.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
JAVELIN 29th Nov., 1940 D.N.C.4B/R42	Two Contact Torpedoes fired from destroyer	13 months	JAVELIN while in company with other units, 20 miles south of the Lizard at 28 knots, was engaged by German destroyers. Two torpedo hits occurred on the starboard side, about 6 ft. below the waterline, one forward approximately 26 ft. forward of No.1 gun, and one aft approximately level with fore end of the after superstructure. The fore end, forward of No.1 gun, was blown away and the ship flooded back to the after end of the cold room. The engine room and forward magazine to No.2 gun group flooded slowly but the flooding was controlled. A serious oil fuel fire occurred aft but was got under control.
			Fighting Efficiency - Seriously impaired. Vessel was out of action.
SAGUENAY (R.C.N.) 1st Dec., 1940 D.N.C.4B/R63	One Contact Torpedo fired from submarine	4 months	SAGUENAY while escorting a convoy was struck by a torpedo on the port side about 20 ft. forward of 'A' gun. The fore end, almost back to 'A' gun was destroyed and the remaining structure below the forecastle deck, forward of the bridge, was severely damaged by a fire, which started in the paint store. The forward magazine group was flooded as a precautionary measure. Buckling occurred in the upper deck, side framing, and plating down to the waterline, in the vicinity of the fore end of the after superstructure. Fighting Efficiency - Seriously impaired.
			The forward guns were out of action, and the speed was reduced because of the damage.
CAMERON (Ex U.S.A.) 5th Dec., 1940 D.N.C.4B/R67	One Near Miss 250 kgm (probably 500 kgm) direct action fuzed Bomb	17 months (including 10½ months permanent repairs and conversion to experimental ship)	CAMERON while in No.8 dry dock at Portsmouth Dockyard during an air raid sustained severe damage from a bomb which struck the "broad altar" of the dock on the port side of the ship, abreast 77 station. The side plating for 70 to 80 ft. in way of the explosion, was blown in, and the explosion lifted the ship bodily displacing the breast and bilge shores so that the vessel turned over on her port side. The dock was flooded to help extinguish the severe oil fuel fire in both the ship and dock. This fire caused extensive structural damage. Fittings, wiring etc., were extensively damaged by the flooding and by oil fuel.
			Fighting Efficiency- Severely impaired. The vessel was completely out of action.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WINDSOR 8th Dec., 1940	One Non-Contact Acoustic Mine 18 fathoms	17 weeks	WINDSOR while proceeding at 13 knots, sustained an explosion under the bottom about 144 station. Minor structural damage occurred abaft 126 bulkhead, some minor leaks developed in the oil fuel tanks and some compartments aft. Casings to port turbines, and the cast iron feet and casings of starboard L.P. and H.P. turbines were fractured. Fighting Efficiency - Seriously impaired. The vessel was immobilised, and all electric power lost.
MAORI 13th Dec., 1940	Machine gun attack	Nil	MAORI suffered superficial damage to superstructure by machine gun bullets. Fighting Efficiency - Not impaired.
ACHERON 17th Dec., 1940	One Contact size unknown Mine	Sunk	ACHERON proceeding at 27 knots near the Needles struck a mine on the port side forward. A serious fire occurred forward of the bridge, the ship heeled to port and sank by the bows in about 4 minutes.
BERKELEY 20th Dec., 1940	One Non- Contact Acoustic Mine	8 days	BERKELEY was approaching the Medway Gate at $9\frac{1}{2}$ knots, when an explosion occurred 30 yard off the port quarter. Structural damage was negligible, but keep-plates to L.P. and H.P. turbines port and starboard were fractured. Fighting Efficiency - Slightly impaired. Speed was reduced due to damaged keep-plates.
FORESIGHT 22nd Dec., 1940	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	FORESIGHT during an air raid on Liverpool sustained damage due to a near miss bomb. Minor damage occurred to the hull above the waterline, and to the superstructure plating at the fore end. Fighting Efficiency - Not impaired.
HYPERION 22nd Dec., 1940	One Moored Contact Mine (Torpedoed by own forces)	Sunk	HYPERION was proceeding in the Mediterranean 24 miles east of Cape Bon when a heavy explosion occurred under 'Y' gun. The ship's back was broken, and the after end flooded to 134 bulkhead. Boilers and auxiliaries were undamaged, but the port engine jammed and the starboard engine jumped badly, and could not be used. Due to inability to steam and the close proximity to Pantelleria, HYPERION was torpedoed and sunk by our own forces.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WARWICK 23rd Dec., 1940	One Non- Contact Acoustic Mine	14½ months including 9½ months permanent damage repairs and conversion	WARWICK proceeding in the mouth of the Mersey at 18 knots sustained an explosion at the after end. Severe structural damage occurred in the area from amidships to after end and extensive damage was done to the main and auxiliary castings. The casting to the outlet of the port main condenser was fractured and the after boiler room and compartments abaft this were flooded. Fighting Efficiency - Severely impaired. The vessel was immobilised and beached.
VENOMOUS 30th Dec., 1940 D.N.C.4B/R45	One Non- Contact Acoustic Mine 10 fathoms	7 weeks	VENOMOUS while in Liverpool harbour entrance, proceeding at $12\frac{1}{2}$ knots sustained an explosion 30 ft. to starboard abreast 'X' gun. Minor structural damage occurred from the main engine room to abreast the after end of the after superstructure. The after oil fuel tanks leaked into the engine room, gland space, and torpedo head room, and minor flooding from the sea occurred into the gland space and lower provision room. The sliding feet of the starboard H.P. turbine were fractured and the starboard dynamo was out of action due to fractured castings. Fighting Efficiency - Seriously impaired. The vessel was immobilised and taken in tow.
GALLANT 10th Jan., 1941 D.N.C.4B/R202	One Contact Mine	Not repaired	GALLANT while in action in company with ILLUSTRIOUS 25 miles S.E. of Pantellaria at 17 knots sustained an explosion forward under 'A' gun. The fore end from just forward of 'B' gun was completely blown off and floated separately for a short while. The bridge structure was intact and vessel was water-tight abaft the after bulkhead of No.1 boiler room. The fore bulkhead of No.1 boiler room was holed and leaking and No.1 boiler room flooded. The keel, side plating and upper deck were buckled in the vicinity of the after end of the after torpedo tube position. The safety valves of Nos. 2 and 3 boilers were opened and no secondary lighting was available, except from torches and Oldham lamps, due to the flooding of the forward switchboard room which contained the L.P. batteries and generators. Fighting Efficiency - Severely impaired. The ship was immobilised and was towed stern first to Malta. REMARKS This incident emphasised the need for the L.P. generators and batteries to be staggered

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
CASTLETON (ex U.S.A.) 18th Jan., 1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	CASTLETON while in hand for collision repairs in No.9 dock at Portsmouth Dockyard sustained superficial damage from bomb splinters during an air raid. Fighting Efficiency - Not impaired.
BOREAS 19th Jan., 1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	BOREAS while in hand at Millwall Docks, London for repairs to bomb damage sustained on 25th July, 1940, suffered further superficial damage by bomb splinters during an air rai Fighting Efficiency - Not impaired.
DECOY 19th Jan., 1941	One Direct Hit size unknown (probably 500 kgm) delay action fuzed Bomb	Nil (damaged whilst undergoing repairs)	DECOY whilst undergoing bomb damage repairs in Malta dockyard suffered further damage during an air raid. The bomb hit right forward on the forecastle deck passing through it, and out through the side plating starboard above the waterline finally exploding in the water. The fore end to 24 bulkhead was severely damaged and minor damage occurred aft to 41 bulkhead. Minor leaking took place through strained rivets and seams. Fighting Efficiency - Slightly impaired. As gun support was buckled and the loading arm fractured. The asdic was out of action.
VIMIERA 30th Jan., 1941	Machine gun attack	Nil	VIMIERA while rejoining a convoy at 10 knots was machine-gunned by an enemy aircraft. Superficial damage to the bridge and superstructure occurred, and the forward gunshield was pierced by bullets. Fighting Efficiency - Not impaired.
ST. LAURENT (R.C.N.) 14th Feb., 1941	Near Miss size and type unknown Bomb	Nil	ST. LAURENT suffered minor structural damage during an enemy air attack, and slight leakage occurred through strained hull connections. Fighting Efficiency - Impaired. The A/S directing gear was out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
STUART (H.M.A.S.) .19th Feb., 1941	Three Near Miss size unknown delay action fuzed Bombs	Nil	STUART was attacked by enemy aircraft off Benghazi. Four sticks were dropped, the nearest being a stick of three bombs, which fell about 40 yards from the port quarter. The others were from 100-200 yards away from the port side. The stern whipped badly, and a depth charge rail was distorted, two charges falling on to the deck without exploding. The port dynamo came off the board, but no major damage occurred to the structure or main engines.
n.,			Fighting Efficiency - Not impaired.
DAINTY 24th Feb., 1941	One Direct Hit size unknown (probably 500 kgm) very short delay action fuzed Bomb (Possibly with incendiaries attached)	Sunk	DAINTY, while proceeding off Tobruk at 20 knots, was attacked by an enemy aircraft. The bomb hit and penetrated the upper deck aft and exploded on, or near, the lower deck 130-142 stations. Severe internal structural damage occurred in the wake of the explosion, the ship's side, port, being opened up and the upper deck blown into the air. A serious oil fuel fire started aft, which eventually got out of control. The main engines were undamaged and the after bulkhead of the engine room remained watertight. All main lighting failed, but the secondary lighting remained on. A violent explosion then occurred aft (probably the warhead magazine) and the vessel broke her back, the stern sinking immediately. Twenty three minutes after the bomb had struck, the order to abandon ship was given. The vessel was abandoned with 60 ft. of the bow above water, but this quickly sank.
EXMOOR 25th Feb., 1941	Probably one contact torpedo fired from E-boat	Sunk	EXMOOR was attacked in the North Sea and sustained an explosion in or beneath the after part of the ship. The explosion split the hull causing severe internal damage probably from the tiller flat to the engine room. Oil fuel sprayed over the after end by the explosion, was ignited almost immediately and the after end was enveloped in flame. The fire spread rapidly forward and the ship heeled 20° to port. EXMOOR finally capsized to port, stood on end, and sank in about 10 minutes.
COSSACK 3rd March, 1941	One Non- Contact Acoustic Mine	Nil	COSSACK sustained minor structural damage and minor defects to auxiliaries from an underwater explosion. The cast iron feet of the starboard L.P. turbine were fractured. Fighting Efficiency - Slightly impaired. A reduction of speed due to the damaged castings was caused.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
SHERWOOD (ex U.S.A.) 10th March,1941 D.N.C.4B/R66	Two Near Miss size unknown direct action fuzed Bombs	Nil (damaged whilst undergoing repairs)	SHERWOOD was damaged when berthed alongside the Middle Slip Jetty during an air raid or Portsmouth. The first bomb dropped 30 ft. off the port side abreast the bridge, and a second bomb exploded beneath the jetty 20 to 25 ft. to starboard abreast the bridge. Minor damage was caused by splinters from the first bomb, and water entered the electrical store through a splinter hole. The American 50 calibre machine gun sustained minor damage.
gr.			Fighting Efficiency - Not impaired.
TYNDALE 11th March,1941 D.N.C.4B/R66	Three Near Miss size unknown delay action fuzed Bombs	9 days	TYNDALE was damaged during an air raid on Portsmouth whilst berthed alongside Pitch House Jetty. The bombs exploded off the starboard side, one abreast the engine room and two abreast No.1 gun causing minor superficial damage due to splinters. Minor damage to the castings of engine room auxiliaries occurred, and the cast iron feet of the starboard L.P. turbine were fractured.
			Fighting Efficiency - Slightly impaired.
CATTISTOCK 11th March, 1941	Near Miss size and type unknown	5 days	CATTISTOCK was attacked by enemy aircraft whilst operating in the North Sea. A near miss caused some very minor defects.
	Bomb		Fighting Efficiency - Not impaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WITHERINGTON 11th March, 1941 D.N.C.4B/R66	One Direct Hit 50 kgm delay action fuzed One Near Miss 50 kgm delay action fuzed Bomb	5½ months	WITHERINGTON was damaged during an air raid on Portsmouth whilst berthed alongside the South Slip Jetty. The bomb hit and perforated the upper deck, port side abreast the forward funnel passed through No.1 boiler room perforated the outer bottom and exploded below the keel The port side plating just aft of the forward funnel was blown upwards, and fractured from the keel to 16 ft. above. The vessel whipped violently, and severe buckling was caused around the girth at a position about 14 ft. forward of the after superstructure with minor internal damage in way of the buckling. Both boiler rooms and some compartments aft flooded immediately, and minor damage occurred to the engine room auxiliaries. A near miss occurred forward under No.1 oil fuel tank causing the outer bottom plating in the vicinity to be blown upwards and fractured over a length of about 8 ft. No.1 oil fuel tank flooded immediately. Fighting Efficiency - Severely impaired. The vessel was immobilised due to loss of steam and 'Y' gun was out of action due to shock. Note. WITHERINGTON was towed to the mud flats and beached. If this damage had been sustained in action, the vessel would probably have founded on a long tow or in rough weather.
ANTHONY 16th March,1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	ANTHONY while berthed at Barclay Curle's yard, during an air raid on Glasgow, suffered superficial damage caused by splinters from a near miss. Fighting Efficiency - Not impaired.
VANOC 17th March,1941	Rammed Submarine	3 months	VANOC while operating to the north west of Scotland, rammed a submarine. The bow structure below the lower deck was crushed for 10 ft., leaving the fore end open to the sea, and flooded. Fighting Efficiency - Slightly impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LEWES (ex U.S.A.) 22/23rd March, 1941	Near Miss size and number unknown probably mixed delay and direct action fuzed Bombs	Nil (damaged whilst undergoing repairs)	LEWES during an air raid sustained a near miss close to the stern and several others around the ship. Minor structural damage was caused and superficial splinter damage occurred above the waterline. The ship's side and superstructure were perforated, and minor damage occurred to the machinery. Fighting Efficiency - Not impaired.
GRIFFIN 23rd March, 1941	One Near Miss size unknown direct action fuzed Bomb	Nil	GRIFFIN during an air raid on Malta sustained superficial damage due to splinters from a near miss Nos.l and 3 oil fuel tanks were perforated above the waterline. Fighting Efficiency - Not impaired.
FORESTER 30th March, 1941	One Near Miss size and type unknown Bomb	1 month	FORESTER suffered minor damage and leaks in oil fuel tanks from a near miss during an enemy air attack. Fighting Efficiency - Slightly impaired. Endurance was reduced due to loss of oil fuel.
QUORN 1st April, 1941	Two Near Miss size unknown delay action fuzed Bombs	Nil	QUORN was attacked by enemy aircraft and two bombs exploded underwater about 20 yards off the port quarter. Very minor damage was sustained, four keeps to the L.P. turbines being fractured and No.5 oil fuel tank leaked slightly into the after magazine. Fighting Efficiency - Slightly impaired.
MOHAWK 16th April, 1941 D.N.C.4B/R205	Two Contact Torpedoes fired from destroyer 7 fathoms (sunk by gunfire from our own forces)	Sunk	MOHAWK was sunk whilst attacking an enemy convoy in the Mediterranean. 1st Torpedo struck the after end between 'X' and 'Y' mountings. About 50 ft. of the stern including 'Y' mounting was blown off and the vessel flooded aft, probably to the after bulkhead of the gearing room. 2nd Torpedo struck abreast No.3 boiler room causing severe damage mostly above the bilge keel extending from about mid length of No.2 boiler room to a few feet abaft of the forward bulkhead of the engine room. Immediate flooding of No.3 boiler room took place and No.2 boiler room and the engine room flooded rapidly. Within two minutes the vessel took a heavy list to port and settled on her beam ends, the after part being submerged to the torpedo tubes. The wreck was sunk by gunfire from JANUS.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WILD SWAN 20th April,1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	WILD SWAN was damaged during an air raid on London sustaining minor damage due to blast with the oil fuel tanks strained and leaking. Fighting Efficiency - Slightly impaired.
LEWES (ex U.S.A.) 21-22nd April, 1941	Near Miss number size and type unknown Bombs	7½ months	LEWES was damaged by near miss bombs during an air raid on Plymouth. Minor structural damage occurred and superficial damage was caused by splinters. The ship's side above the waterline, the port after oil fuel tank and the funnels being perforated. Steam pipes were holed by splinters and the forward bearing cap and main bearing pedestal of the starboard L.P. turbine were fractured. Fighting Efficiency - Impaired.
GREYHOUND 23rd April,1941	Near Miss size and type unknown Bomb	Nil	GREYHOUND during bombing and minelaying raids on Mersa-Matruh received minor damage from near misses. Fighting Efficiency - Not impaired.
DIAMOND 27th April,1941	One Direct Hit One Near Miss size and type unknown Bomb	Sunk	DIAMOND was dive bombed during the evacuation of Greece. One near miss forward made a large hole in the side plating. The direct hit occurred amidships, and the bomb exploded in the engine room destroying the mast and funnel. DIAMOND rapidly sank stern first.
WRYNECK 27th April,1941	Three Direct Hit size and type unknown Bombs	Sunk	WRYNECK was dive bombed during the evacuation of Greece. One bomb struck the forecastle near 'A' gun killing and wounding all bridge and gunnery personnel. Another bomb fell down the engine room hatch and wrecked all the steam pipes. A third bomb struck the after end and set on fire a R.U. ammunition locker. Ship was abandoned while still moving at 18 knots with a heavy list to port, and four minutes later she capsized to port and sank.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
NUBIAN 29th April,1941	Two Near Miss size unknown (probably 250 kgm) delay action fuzed Bombs	Nil	NUBIAN was attacked by an enemy aircraft and sustained one near miss 20 ft. off the port bow and one 20 ft. ahead. Minor buckling and distortion of side plating and internal structure occurred from the stem to 36 station port, below the waterline and minor flooding took place through strained connections. Fighting Efficiency - Slightly impaired.
ENCOUNTER 29th April,1941 D.N.C.4B/R121	One Near Miss 1000 kgm probably 1500 kgm direct action fuzed Bomb	Nil (damaged whilst in dry dock) See Page 166	ENCOUNTER was docked in No.2 dry dock during an air raid on Malta when a bomb exploded on the dock steps abreast the bridge on the starboard side. Extensive and serious damage was caused by splinters over the whole of the starboard side and steam pipes, firemains and the boiler were pierced. A minor fire started in wake of the damaged peace tanks starboard which spread to No.2 boiler room and down the ship's side to the dock blocks. Had water been in the dock, or the vessel at sea, the damaging effect of the splinters would have been greatly reduced. Fighting Efficiency - Severely impaired. Nearly all lighting and power was out of action and 4.7 inch and 3 inch guns and .5 inch machine guns were severely damaged. REMARKS Proposed C.A.F.O. on D.N.C.5760/41. Further to C.A.F.O.1650/41, a fire recently occurred in the boiler room of a destroyer through the sullage in the "peace" oil tanks being ignited by a bomb splinter penetrating the tank from a "near-miss". The attention of Commanding Officers is called to the necessity of completely draining the "peace" tanks as soon as the peace oil has been used.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ENCOUNTER 30th April,1941 D.N.C.4B/R121	One Direct Hit 50 kgm delay action fuzed Bomb	Nil (damaged whilst in dry dock) See Page 166	ENCOUNTER was docked in No.2 dry dock at Malta when a bomb hit on the forecastle deck just abaft the starboard hawse pipe. It perforated the upper and lower decks and exploded in the A/S directing compartment. The ship's side port was blown out over a height of 8 ft. above the keel, and the internal structure was seriously damaged for 16 ft. above the keel. The lower deck was blown upwards. A minor fire occurred in the A/S compartment and mess deck. Fighting Efficiency - Seriously impaired. If vessel had been at sea considerable flooding would have occurred and the A/S directing gear would have been out of action.
JERSEY 2nd May, 1941	One Contact	Sunk	JERSEY was mined in the entrance to Grand Harbour, Malta, no details of damage are available.
SOUTHDOWN 4th May, 1941	Two Near Miss 250 kgm delay action fuzed Bombs	Nil	SOUTHDOWN was operating in the North Sea during a low level attack by enemy aircraft, when bombs fell 10 to 30 yards to port. Minor structural damage was caused and slight leakage occurred in Nos.2 and 3 magazines. The holding down bolts of all turbines were bent. The port steering motor was badly damaged and the starboard steering motor slightly damaged. Fighting Efficiency - Impaired. The port steering motor was out of action and speed was reduced due to machinery damage
NEWARK (ex U.S.A.) 4-5th May, 1941	Size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	NEWARK while undergoing repairs at Belfast was damaged during an air raid, as also was some of the ship's equipment which had been landed in the dockyard for repair. At the time the ship was already out of action as a fighting unit.
VOLUNTEER 5th May, 1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	VOLUNTEER, during an air raid on Belfast, suffered extensive but not serious splinter damage to hull and superstructure plating above the waterline from near miss bombs. Fighting Efficiency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WHADDON 8th May, 1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	WHADDON during an air raid in the Hull area suffered superficial damage caused by bomb splinters. Fighting Efficiency - Not impaired.
VIVACIOUS 8th May, 1941	Near Miss size and type unknown Bomb	Nil (damaged whilst undergoing repairs)	VIVACIOUS during an air raid in the Hull area suffered superficial damage caused by bomb splinters. Fighting Efficiency - Not impaired.
HURRICANE 8th May, 1941 D.N.C.4B/R72	One <u>Direct</u> <u>Hit</u> 250 kgm delay action fuzed <u>Bomb</u>	8 months	HURRICANE was berthed in the Gladstone wet dock during an air raid on Merseyside and district, and she received a direct hit from a bomb on the upper deck edge port at 132 station. The bomb passed out through the port side and exploded under the bottom causing a hole in outer bottom with plating dished upwards over an area 24 ft. by 15 ft. The internal structure in way of the explosion was wrecked. Immediate flooding of the after oil fuel tanks and engine room occurred and compartments aft of this flooded slowly. The stern dropped $2\frac{1}{2}$ ft. Electrical circuits and machinery abaft the fore and bulkhead of the engine room received serious damage.
			Fighting Efficiency - Seriously impaired. Vessel was immobilised due to the flooding of the engine room and loss of oil fuel. The after gun could not be used due to the flooded magazine and the after depth charge group was out of action. In adverse weather conditions the vessel would probably have foundered on a long tow.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VISCOUNT 8th May, 1941 D.N.C.4B/R72	One Near Miss 250 kgm direct action fuzed Bomb	10 months including conversion	VISCOUNT whilst berthed in the Gladstone wet dock during an air raid on Mersey-side and district, received a very near miss on the starboard side, abreast the after bulkhead of the after boiler room. The after bulkhead of the after boiler room suffered minor damage and the side plating in the vicinity from bilge keel to the sheer strake over a length of about 24 ft. was blown inboard. Minor splinter damage was caused. No.3 boiler was wrecked, the bearings to the starboard L.P. turbines were twisted and serious damage was done to the auxiliaries. The engine room and after boiler room flooded immediately.
			Fighting Efficiency - Seriously impaired. The ship would have been immobilised if at sea, due to the flooding of the engine room and boiler room. In adverse weather conditions the ship would probably have foundered on a long tow.
10th May, 1941 D.N.C.4B/R178	Near Miss number and size unknown delay action fuzed Bombs	6½ months including refit	FORTUNE while proceeding in the Mediterranean, was attacked by enemy aircraft and received major damage from a near miss which exploded 20 ft. under the stern near the after cut up, and minor damage from other near misses. Just forward of the cut up the starboard side plating was split vertically over a length of 12 ft., below the waterline and buckled each side of the split. About 15 ft. forward of this split on the port side the side plating was buckled from keel to the sheer strake over a length of about 6 ft. Severe internal damage occurred and the starboard plummer block was fractured. Immediate flooding of the after magazine and shell room took place, and slow flooding of the warhead magazine and the after oil fuel tanks occurred. Minor flooding took place in the engine room and other compartments aft.
			Fighting Efficiency - Seriously impaired. The efficiency of the starboard engine was greatly reduced due to the bent shafting and damaged structure. The after guns were out of action due to flooded magazines. REMARKS This incident emphasised the need for a greater allowance of timber for shoring purposes and for pumping facilities to be improved.
			Modification is necessary to strainers and strum boxes to prevent choking and a portable connection is required between the oil fuel tank suction line and bilge pumps to facilitate pumping in an emergency. Emergency jumping ladders should be fixed in position under escape hatches for ready use in an emergency.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BROADWAY (ex U.S.A.) 11th May, 1941	One Direct Hit calibre and type unknown Shell	2 months	BROADWAY sustained a direct hit below the waterline forward on the port side. The forward 4 inch and S.A. magazine was flooded to the platform deck and oil fuel tanks in this vicinity leaked. Two blades of the port propeller were broken. Minor splinter damage occurred on the port side forward. Fighting Efficiency - Seriously impaired. The forward guns were out of action. Endurance and speed was reduced by the loss of oil fuel and damaged propellers.
RIPLEY 12th May, 1941	Near Miss size and type unknown Bomb	Nil	RIPLEY sustained minor damage from near misses. Splinters caused a small cordite fire on the upper deck. Fighting Efficiency - Not impaired.
ANTHONY 13th May, 1941	Near Miss size and type unknown Bomb	Nil	ANTHONY during an air raid on the Glasgow district suffered minor superficial damage from splinters. Fighting Efficiency - Not impaired.
ENCOUNTER 16th May, 1941 D.N.C.4B/R121	One Direct Hit 50 kgm delay action fuzed Bomb	Nil (damaged whilst in dock) Vessel fit for service 11th July, 1941. See 162 and 163	ENCOUNTER was in dock during an air raid on Malta. A direct hit struck the .5 inch machine gun platform on the port side, perforated the upper deck and exploded in the port bilges of No.2 boiler room. The ship's side plating was blown out and extensive and serious splinter damage occurred. No.2 boiler and boiler room auxiliaries were severely damaged. The ring main was cut and all high and low power cables on the port side were destroyed. Fighting Efficiency - Seriously impaired. If the vessel had been at sea fighting efficiency would have been seriously impaired.
JUNO 21st May, 1941	Direct Hit size and type unknown Bombs	Sunk	JUNO was attacked by dive bombers during the evacuation of Crete and sank in 2 minutes. No further information available.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
GREYHOUND 22nd May, 1941	Two <u>Direct</u> <u>Hit size and</u> type unknown <u>Bombs</u>	Sunk	GREYHOUND during the evacuation of Crete was attacked by dive bombers. The ship was struck by two bombs and sank stern first within 15 minutes. No further information available.
KINGSTON 22nd May, 1941	Four Near Miss 100 kgm delay action fuzed Bombs	Approximately 1 week	KINGSTON during the evacuation of Crete was damaged by three near miss bombs 20 ft to starboard and one 50 ft. to port. Minor damage occurred to the hull and structure. The petrol compartment and naval store were flooded. The cast iron feet of port and starboard H.P. turbines were fractured. Severe damage occurred to auxiliary machinery castings and the starboard plummer block was fractured. Fighting Efficiency - Seriously impaired.
KELLY 23rd May, 1941	One Direct Hit size and type unknown Bomb	Sunk	KELLY was attacked by dive bombers during the evacuation of Crete. A large bomb hit the ship which capsized to port and floated bottom up for half an hour before sinking. No further information available.
KASHMIR 23rd May, 1941	Direct Hit size and type unknown Bomb	Sunk	KASHMIR was attacked by dive bombers during the evacuation of Crete. The ship sank within 2 minutes of being hit. No further information available.
HAVOCK 23rd May, 1941	Number unknown Near Miss size unknown (probably 500 kgm) direct action fuzed Bombs	Approximately 3 weeks	HAVOCK during the evacuation of Crete was attacked by dive bombers and sustained damage from near misses, the nearest of which was 15 ft. from the starboard side abreast the bridge. Severe splinter and blast damage occurred in the vicinity of the bridge on the starboard side, and the ship's side plating in the vicinity was holed by splinters from 3 ft. below waterline to the upper deck level. The foremost oil fuel tanks were holed and opened up to the sea. No.1 boiler was put out of action due to punctured main steam and feed pipes, cut tubes, and partial flooding of the boiler room. Important electric cables were severely damaged. A fire started in the decontamination store but it was rapidly extinguished. Fighting Efficiency - Impaired. Speed was reduced due to the No.1 boiler room being out of action and the radius of action was cut down due to the flooding of the forward oil fuel tanks.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ILEX 23rd May, 1941	One Near Miss size unknown delay action fuzed Bomb	Approximately 4 days	ILEX was damaged during the evacuation of Crete by a near miss under the stern. The propellers and rudder were damaged and minor flooding occurred at the after end. Fighting Efficiency - Impaired.
NUBIAN 26th May, 1941	One <u>Direct</u> <u>Hit 500 kgm</u> direct action fuzed <u>Bomb</u>	17 months	NUBIAN when attacked by enemy aircraft sustained a direct hit on the upper deck just abaft 'Y' gun. The stern structure from 'Y' mounting to the stern was blown away above the waterline and internal structure below the waterline was damaged. Immediate flooding occurred abaft gearing room and Nos. 3 and 4 magazines were flooded as a precautionary measure against fire. Fighting Efficiency - Seriously impaired. 'Y' mounting and the steering gear was destroyed. The vessel steamed to port at 22 knots, steered by main engines.
COSSACK 26th May, 1941	"Shorts" 15" and 5.9" number and type unknown Shells	Nil	COSSACK was engaged in action with BISMARCK when the main W.T. aerials were shot away by splinters from "shorts". Fighting Efficiency - Impaired. The ship was unable to transmit.
ZULU 27th May, 1941	"Shorts" 15" and 5.9" number and type unknown "Shells"		ZULU was in action with BISMARCK when superficial damage was caused by splinters. The side plating starboard was perforated below the waterline in way of the tiller flat and minor flooding occurred. Some damage was done to H.P. and L.P. cables. Fighting Efficiency - Slightly impaired. The D.C.T. was damaged.
HERO 27th May, 1941	Near Miss size and type unknown Bomb	Nil	HERO was bombed during the evacuation of Crete. A near miss caused the ship to reduce speed temporarily to 28 knots. Details of damage are not known. Fighting Efficiency - Temporarily impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MASHONA 28th May, 1941 D.N.C.4B/R97	One Near Miss (close alongside) 100 kgm direct action fuzed number unknown Near Miss direct action fuzed Bombs (wreck sunk by gunfire by own forces)		MASHONA while in position about 70 miles west of the Shannon Estuary was subjected to 6 bombing attacks. One near miss port, during the 4th attack, fell close alongside in the vicinity of the forward bulkhead of No.1 boiler room, blowing a hole in the side plating 14 ft. by 5 ft. just acove the waterline, and causing severe structural damage in the vicinity. Extensive splinter damage was caused to No.1 boiler room and to steam and feed lines and minor splinter damage occurred over the port side from abreast the forward gun mounting to abreast No.2 boiler room. Flooding began by waves breaking in through the holes in the side and as the ship listed to port the rate of flooding increased. No.1 boiler room and A.4 oil fuel tank flooded rapidly. No.2 boiler room and the crew spaces in the lower deck aft of 30 bulkhead flooded more slowly through splinter holes. A 2 oil fuel tank and 'B' magazine also flooded slowly and water commenced to enter No.3 boiler room shortly before the ship was abandoned. Minor splinter damage and flooding occurred at the ends of ship due to near misses. A fire which started in 'B' magazine was put out by controlled flooding. The steering engines were out of action and guns fired in local control only. All lighting was lost and power finally failed due to lack of feed water and flooding of No.2 boiler room. The 5th and 6th attacks caused further minor damage. The ship was abandoned about 1 hour and 20 minutes after the 4th attack, being flooded from the fore bulkhead of the forward magazine group aft to the after bulkhead of No.2 boiler room. She then slowly capsized and floated bottom up, finally being sunk by gunfire from own forces. REMARKS This incident emphasised the danger of lining the ship's side in the vicinity of the waterline. (Linings on ship's side were removed as a result of C.A.F.O.1214/40 but were replaced in accordance with C.A.F.O.1665/41).

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
IMPERIAL 28th May, 1941	Five Near Miss size and type unknown Bombs	Nil	IMPERIAL when attacked by dive bombers near Crete sustained near misses at the after end. Superficial damage was caused by splinters but examination disclosed no serious damage. Fighting Efficiency - Not impaired.
HEREWARD 29th May, 1941	Direct Hit size and type unknown Bombs	Sunk	HEREWARD while engaged in the evacuation of Crete was hit by bombs from enemy aircraft and sunk. No further information available.
NIZAM (H.M.A.S.) 29th May, 1941	One Near Miss 250 kgm delay action fuzed Bomb	1 week	NIZAM when attacked by enemy aircraft suffered a near miss 15 ft. off the port quarter. Minor structural damage was sustained and minor leaks occurred in the after oil fuel tanks. The port plummer block was put out of alignment. Fighting Efficiency - Slightly impaired.
DECOY 29th May, 1941	Five Near Miss size unknown delay action fuzed Bombs	Ni.1	DECOY while proceeding from Heraklion to Alexandria was attacked by enemy aircraft. The bombs exploded underwater on the port side at the after end of the engine room. Minor structural damage was caused and the engine room bulkheads were slightly buckled. The cast iron feet to the L.P. turbines were fractured and minor damage was caused to auxiliary machinery castings. Fighting Efficiency - Slightly impaired. Speed was reduced to 26 knots.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
KELVIN 30th May, 1941	One (probably two) Near Miss 250 kgm delay action fuzed Bomb	6½ months	KELVIN while proceeding in the Mediterranean was attacked by enemy aircraft and sustaine a near miss, 10 ft. off the starboard side aft, which exploded under the stern. The outer bottom plating and internal structure between the cut-up and 83 bulkhead was severely buckled and the contour plate at the cut up was fractured in three places. Minor damage occurred forward from 32 to 43 stations. Flooding of warhead and after 4.7 inch magazine, spirit room and gland spaces occurred. The after end dropped slightly and the port shaft was distorted. The sliding foot of the starboard inner H.P. turbine was fractured and minor damage was done to auxiliaries. Fighting Efficiency - Seriously impaired. The after guns were out of action due to flooding. A reduction of speed was caused by the damaged shafting, and the vessel returned to base at 21 knots.
NAPIER 31st May, 1941	Two Near Miss 250 kgm delay action fuzed Four Near Miss 100 kgm delay action fuzed Bombs	6 weeks	NAPTER was attacked by enemy aircraft and sustained several near misses. One 250 kgm bomb fell 10 ft. from the port side abreast the after end of engine room and the other at an unknown distance. The four 100 kgm bombs fell to starboard abreast the engine room. Minor structural damage was sustained between the forward bulkhead of No.2 boiler room and the after bulkhead of the gearing room. Extensive damage occurred to main and auxiliary machinery and the fixed and sliding feet of both H.P. turbines were fractured. Oil fuel pumps in No.2 boiler room fractured, and oil sprayed over the compartment. Fighting Efficiency - Seriously impaired. No.2 boiler room was temporarily out of action and speed was reduced to 24 knots.
JANUS 9th June, 1941 D.N.C.4B/R192	Five <u>Direct</u> <u>Hit 5.5 inch</u> delay action fuzed <u>Shells</u>	9½ months including refit	JANUS during an action with French destroyers in the Eastern Mediterranean off Sidon sustained five direct hits with shells. Hits in No.1 boiler caused minor structural damage. A serious fire was started, and this and splinter damage put the boiler room out of action. Hits on the bridge and in the vicinity of the spirit room caused minor structural damage. Extensive splinter damage was sustained by the ship. Fighting Efficiency - Seriously impaired. No.1 boiler room was out of action and serious damage occurred to electrical equipment. The vessel was taken in tow to Haifa.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
JACKAL 9th June, 1941	One Direct Hit 5.5 inch direct action fuzed Shell	Nil	JACKAL when in action with some French destroyers off the Syrian coast, sustained a direct hit on the upper deck aft, abreast the port paravane davit. Minor structural damage was caused and splinters damaged the paravane gear. Two in number depth charge were split open, but did not explode. A minor fire occurred in the tiller flat but it was soon extinguished.
			Fighting Efficiency - Slightly impaired. The capacity of the depth charge rack was reduced to two charges. Paravanes and associated gear were out of action.
ISIS 15th June, 1941 D. N. C. 4B/R102	Two Near Miss estimated 1000 lbs. delay action fuzed Bombs	17½ months	ISIS while operating in the Mediterranean was attacked by enemy aircraft. Two near misses occurred on the starboard side, one close to the ship abreast the forward bulkhead of No.1 boiler room and the other abreast the forward magazine. A fracture occurred in the ship's side starboard at the forward bulkhead of No.1 boiler room about 2 ft. maximum width by 10 ft. in depth, and considerable distortion and buckling of decks and main hull structure occurred just aft of the after torpedo tube mounting. Minor damage occurred forward from the main fracture to the forward bulkhead of the forward magazine. All compartments below the upper deck between the after bulkhead of No.1 boiler room and the after bulkhead of the cable locker were flooded. The propeller shafts were bent, and the stern had probably dropped. Fighting Efficiency - Severely impaired. The manoeuvrability of the ship was lost, maximum speed obtainable was 10 knots with an excessive trim by the bows and limited range due to loss of oil fuel. Guns could be fired in local control only and for a limited period, all the forward ammunition supply being lost due to the flooding of the forward magazine group. W/T and A/S were out of action.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ILEX 15th June, 1941	Probably 500 kgm type unknown Bomb	15 months Repaired in U.S.A.	ILEX was attacked and bombed by French aircraft in the Eastern Mediterranean. The estimated position of the explosion was under the after end of No.2 boiler room between 10 and 15 ft. to starboard of the middle line. Severe structural damage was caused, the forward and after bulkheads of No.2 boiler room were distorted and the keel hogged in the vicinity. The after bulkhead of No.3 boiler room was distorted at the lower end. Shell plating and framing were badly distorted on both sides of ship near the centre of No.3 boiler room and slightly distorted over the rest of amidships. Flooding occurred in Nos.2 and 3 boiler rooms but in No.2 boiler room it was controlled by the ship's pumps. The diesel generator was thrown from its bedplate and lighting circuits in No.2 and 3 boiler rooms were damaged by flooding. The gyro compass was rendered useless. Fighting Efficiency - Severely impaired. All boilers were temporarily out of action and ship was unconverthy due to the structural damage.
JACKAL 15th June, 1941	One Direct Hit 500 kgm delay action fuzed Bomb	Nil	JACKAL while being attacked by aircraft off the Syrian coast sustained a direct hit on the edge of the upper deck port side about 16 ft. from the after end. The bomb was deflected and passed overboard where it exploded. Minor damage occurred to the hull plating in the vicinity of the hit. The main engines and armament were undamaged. Fighting Efficiency - Unimpaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VANESSA 19th June, 1941 D.N.C.4B/R74	One Direct Hit 100 kgm delay action fuzed Bomb	9 months including conversion	VANESSA while escorting a convoy off Cromer was attacked by an enemy aircraft. A direct hit was sustained on the sheer strake at the fore end of No.1 boiler room, and the bomb finally burst on the ship's bottom in No.1 boiler room. The outer bottom plating was blown upwards over the whole length of No.1 boiler room and 9 ft. forward of it, between 2nd longitudinal starboard and bilge keel port, and a hole 6 ft. by 9 ft was made in the outer bottom. Severe damage was caused to the surrounding structure. The upper deck plating was split and blown upwards from near the after end of No.2 boiler room to the bulkhead at the fore end of No.2 oil fuel tank and the E.R.A's and C.P.O's messes. Immediate flooding of Nos.1 and 2 boiler rooms and No.2 oil fuel tank took place. No.1 boiler room was wrecked, No.1 boiler exploded and No.2 boiler was severely damaged. The forward funnel was blown overboard and the after funnel was wrecked.
			Fighting Efficiency - Severely impaired. The vessel was immobilised and out of action and was taken in tow to Yarmouth. Guns could only be fought in local control. The main W/T was destroyed and the D/G was out of action.
ARROW 21st June, 1941 D.N.C.4B/R73	One Non Contact Acoustic Mine	5 months	ARROW was $4\frac{1}{2}$ miles from Flamborough Head when a mine exploded about 50 ft. off the starboard quarter abreast 160 station. Speed at time was 20 knots. Minor structural damage occurred in way of machinery spaces. Oil fuel leaked from Nos.4, 5 and 6 oil fuel tanks into adjacent compartments below the lower deck. The keeps of sliding feet of all H.P. and L.P. turbines and boilers were lifted and distorted and holding down bolts strained. Severe damage occurred to auxiliary machinery castings and all lighting and power was temporarily lost.
			Fighting Efficiency - Severely impaired. "Y" gun, torpedo tubes and D/G were out of action due to shock. A reduction of speed was necessary due to machinery damage, Nos.2 and 3 boilers were out of action, and vessel steamed to port on No.1 boiler at 9 knots.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
PYTCHLEY 23rd June, 1941 D.N.C.4B/R200	One Non Contact Acoustic Mine 23 fathoms	4 months	PYTCHLEY while proceeding at 15 knots about 2 miles from Flamborough Head sustained an explosion under the stabiliser compartment. Minor structural damage occurred to the hull plating which was corrugated generally forward of machinery spaces. Minor leaks occurred in the engine room and forward oil fuel tanks. The sliding feet of port and starboard H.P. turbines and the feet of port and starboard plummer blocks were fractured. Nos. 1 and 2 boilers were forced off their seatings and their feet strained, and serious damage occurred to auxiliary machinery castings. Fighting Efficiency - Seriously impaired. All lighting and power was lost, the D.G. was out of action and the guns could be fired in local control only. The vessel was immobilised due to the main machinery damage and was towed to port.
LIDDESDALE 25th June, 1941	Two Near Miss size and type unknown Bombs	Nil	LIDDESDALE when attacked by enemy aircraft, sustained two near misses by small bombs close to the starboard quarter. Minor structural damage was caused and both steering motors was temporarily out of action. Fighting Efficiency - Temporarily impaired.
WATERHEN (H.M.A.S.) 29-30th June, 1941	Number unknown Near Miss size unknown (mixed one large and four small per stick) delay action fuzed Bombs	*Sunk	WATERHEN while on passage to Tobruk was attacked by enemy aircraft. First stick of bombs fell about 30 ft. clear of port bow and shook the ship severely, starting a leak in No.1 oil fuel tank and causing the W/T aerials to carry away. Second stick fell 50 ft. astern. Third stick fell close alongside the port side abreast the high angle gun. The wheel jammed, the vessel listed to port, and the boiler fires were blown out, so that the ship stopped. A hole 8 ft. long was blown in the ship's side below the waterline betwee the engine room and No.3 oil fuel tank. The engine room and main cabin flat flooded immediately. The flooding in the cabin flat was caused by severe structural damage the extent of which was unknown. The tiller flat and No.2 boiler room was partially flooded. The vessel was abandoned 25 minutes after being attacked with a heavy list to starboard. Some 3½ hours after the attack WATERHEN was reboarded and a tow was passed to DEFENDER. At 0015/30 whilst still in tow the list became greater and the ship was again abandoned although the tow proceeded. About 1½ hours later WATERHEN capsized and sank.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HOLDERNESS 5th July, 1941	One Non- Contact probably Acoustic Mine	26 days	HOLDERNESS while on convoy duties in the North Sea suffered a heavy explosion beneath the ship on the starboard side abreast the fore end of the bridge. Speed at the time was 26 knots. Very minor structural damage occurred in way of the explosion. Minor flooding occurred in No.1 boiler room and No.1 boiler was shut down due to loss of feed water. Minor damage was done to castings. Fighting Efficiency - Seriously impaired. Speed was reduced to 7 knots. No.2 gun was temporarily in local control, and the rangefinder A/S, D.G. and gyro were out of action due to shock.
DECOY 9th July, 1941	One Near Miss size and type unknown Bomb	Nil	DECOY while proceeding from Tobruk to Alexandria was attacked by enemy aircraft and a near miss bomb exploded underwater near No.1 boiler room and No.4 0.F. tank. Minor structural damage occurred to the side plating in the vicinity of the explosion. No.1 boiler room and Nos.2 and 4 oil fuel tanks sustained minor leaks. Minor damage was done to auxiliary machinery. Fighting Efficiency - Slightly impaired.
DEFENDER 11th July, 1941	One Near Miss probably 1000 kgm delay action fuzed Bomb	Sunk	DEFENDER while returning from Tobruk to Mersa Matruh, was attacked by enemy aircraft and a near miss bomb exploded under the ship just abaft the forward bulkhead of the engine room. The engine room and after boiler room flooded immediately and all power failed. The ship listed, and it appeared probable that her back was broken. DEFENDER was taken in tow by VENDETTA but finally sank whilst off Sidi Barani about 5 hours after the attack.
VENDETTA 15th July, 1941	Near Miss size and type unknown Bomb	Nil	VENDETTA was alongside a pier at Tobruk during an enemy air attack when splinters from a near miss damaged the hull plating forward and flooding occurred in the Stoker's messdeck. Fighting Efficiency - Slightly impaired. There was a possibility of speed reduction to prevent extension of flooding through damaged plating.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
GARTH 23rd July, 1941	One Near Miss size unknown delay action fuzed Bomb	Nil	GARTH was escorting a convoy when many bombs were dropped around her during an air attack, and minor damage was caused by one near miss bomb. The keep plates to 4 in No. turbine sliding feet were fractured. Fighting Efficiency - Slightly impaired. Speed was reduced due to damaged keep plates.
FIREDRAKE 23rd July, 1941	One Near Miss 100 kgm direct action fuzed Bomb	6 months including 4 months permanent damage repairs in U.S.A.	FIREDRAKE, while escorting a convoy, was attacked by enemy aircraft. A near miss exploded close alongside No.1 boiler room, starboard. Severe structural damage was sustained and the side plating was blown inwards from upper deck to bilge keel over most of the length of No.1 boiler room and over the fore end of No.2 boiler room. Minor damage was caused by splinters. Immediate flooding of Nos.1 and 2 boiler rooms occurred. No.1 boiler was lifted 19 inches to port and No.2 boiler was lifted 1½ inches to port. Fighting Efficiency - Seriously impaired. The gyro was out of action, starboard ring main fractured, and multicore cables to T.S. (after group) cut. The vessel was temporarily immobilised due to loss of feed water in No.3 boiler and the vessel was taken in tow, but steam was later raised in No.3 boiler and speed increased to 9 knots, the tow later being cast off.
FEARLESS 23rd July, 1941	One Contact Torpedo dropped by aircraft. Wreck sunk by torpedoes from own forces	Sunk	FEARLESS was attacked by an Italian torpedo bomber whose torpedo struck the ship just forward of the after superstructure. Severe structural damage was sustained in way of hit and the after bulkhead of the engine room was split. The ship was stopped, all lighting and power lost and the rudder jammed hard to port. A fierce fire raged, from searchlight to 'Y' gun, in the ship. The starboard engine could not be used due to loss of lubricating oil and the switchboard was wrecked. The vessel was finally abandoned for tactical reasons and sunk by our own forces.

SHIP	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
QUORN 18th Aug., 1941 D.N.C.4B/R71	One Non- Contact Acoustic Mine 8 fathoms	1 month	QUORN, whilst proceeding from Harwich to Chatham at 12 knots, sustained an explosion off the port quarter abreast the after gun mounting. Minor damage occurred to the side plating on the port side aft. The keeps to the feet of the H.P. turbines were strained and minor damage was caused to auxiliary machinery castings. Fighting Efficiency - Slightly impaired. A speed limit restriction was necessary due to the damaged keep plates. The vessel proceeded to Sheerness at 12 knots.
KIPLING 21st Aug., 1941	Four Near Miss 500 lbs. delay action fuzed Bombs	Nil	KIPLING, while returning from Tobruk to Alexandria, was attacked by enemy aircraft. One near miss fell 50 ft. off the starboard side and three bombs fell from 100 to 50 ft off the port side abreast 'X' gun. The ship was badly shaken and one feed pipe was damaged and seized up due to shock. Fighting Efficiency - Slightly impaired. One feed pipe was temporarily out of action.
NIZAM (H.M.A.S.) 21st Aug., 1941	Two Near Miss 500 lbs. delay action fuzed Bombs	Nil	MIZAM, while returning from Tobruk to Alexandria, was attacked by enemy aircraft. Two bombs dropped to starboard, one abreast the funnel and the other abreast No.2 4.7 inch gun. The cast iron feet of the oil fuel pumps were damaged, and both boilers were shut down due to danger of fire from oil fuel which flooded both boiler rooms. This caused temporary failure of all lighting and power. The shock also damaged the gyro compass, aerials and castings of auxiliary machinery. Fighting Efficiency - Seriously impaired. The ship was immobilised for nearly three hours, but was later able to steam under her own power and attain a speed of 20 knots.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WOLFHOUND 3rd Sept., 1941	Number unknown Near Miss size unknown delay action fuzed Bombs	19 months	WOLFHCUND, while on convoy duties in the North Sea at 24 knots, was attacked by an enemy aircraft. One or more near miss bombs exploded just beneath the ship abreast the forward gun causing severe structural damage to the hull, bulkhead and internal structure in the vicinity. A fracture 6" wide appeared from the upper deck down the starboard side just forward of the after funnel and the fore end dropped about 5°. Severe corrugations were caused around the girth forward of the after superstructure. The forward boiler room flooded immediately and most compartments forward flooded slowly. The sliding feet (modified as C.A.F.O.1482/40) of H.P. turbines and port gear case were fractured and minor damage occurred to auxiliary machinery castings. About 26 minutes after the bombs had exploded the structure forward of the after funnel parted and sank.
			Fighting Efficiency - Severely impaired. The vessel was immobilised due to the destruction of the fore end and loss of power. Guns remaining were in local control and the main W/T was temporarily out of action. REMARKS This incident emphasised:- 1. That the method of securing the emergency trip mechanism of the dynamo was unsatisfactory and caused a total blackout. 2. The need for resiliently mounted light fittings. A continued blackout in many compartments was experienced due to breakage of lamp bulbs.
KANDAHAR 5th Sept., 1941	One Near Miss size unknown direct action fuzed Bomb	Nil	KANDAHAR, while at Alexandria, was attacked by enemy aircraft and sustained a near miss off the starboard bow. Splinter damage was caused to the fore end from the stem to abreast "A" mounting and from the forecastle deck to the waterline. Superficial damage occurred to fittings and main structure. Electrical circuits suffered minor damage.
			Fighting Efficiency = Not impaired.
8/9th Sept., 1941	Number unknown Near Miss size unknown Bombs	Nil	KIMBERLEY while on passage to Tobruk was attacked by enemy aircraft and sustained minor structural damage from near misses. Fighting Efficiency - Not impaired.

180.	NATURE OF	TIME OUT OF	DESTROYERS - 1941
SHIP DATE OF INCIDENT	ATTACK	ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
KIPLING 8/9th Sept., 1941	One Near Miss 500 lbs. delay action fuzed Bomb	Nil	KIPLING, while near Tobruk Harbour moving at 25 knots, was attacked by enemy aircraft and a near miss bomb fell five yards from the starboard side abreast the funnel. No major damage was done to hull structure. The feet of two oil fuel pumps were broken Fighting Efficiency - Not impaired.
DECOY 9th Sept., 1941	One Near Miss 500 lbs. delay action fuzed Bomb	Nil	DECOY, while proceeding from Tobruk to Alexandria at 25 knots, came under enemy air attack and a near miss bomb burst under the forward boiler room. Minor leaks occurred in oil fuel tank bulkheads in the vicinity of the burst and shock caused minor damage to machinery. Fighting Efficiency = Not impaired.
VIVACIOUS 3rd Oct., 1941	One Near Miss direct action fuzed Bomb	Nil	VIVACIOUS, while in the North Sea moving at 20 knots, was attacked by enemy aircraft and sustained a near miss 100 ft. astern. The rudder jammed at 4° to starboard, but repairs were effected in 4½ hours. Fighting Efficiency - Temporarily impaired.
BROADWATER (ex U.S.A.) 18th Oct., 1941 D.N.C.4B/R91	One Contact Torpedo fired from submarine and gunfire of own forces	Sunk	BROADWATER, while escorting a convoy 500 miles west of Londonderry, moving at $6\frac{1}{2}$ knots, was struck at the fore end by a torpedo. The fore end was missing from the stem back to the middle of the bridge structure, the fore end of the wheelhouse and nearly the whole of the upper bridge being demolished. Severe buckling occurred to the main deck and the ship's side abaft the aftermost funnel. The ship hogged with her back apparently broken. The main engines and dynamos were immediately put out of action by the explosion. BROADWATER was finally sunk by the gunfire of our own forces 10 hours after the explosion.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
COSSACK 23/27th Oct., 1941	One Contact Torpedo fired from submarine	Sunk	COSSACK, while escorting a convoy off the west coast of Africa, moving at 13 knots, was struck by a torpedo on the port side abreast 'B' gun. The whole of the structure forward of the bridge was destroyed, and the bridge was wrecked and set on fire. The R.U. pom-pom ammunition on the bridge was ignited by the fire. No.1 boiler room flooded immediately, and No.2 boiler room was evacuated with the forward bulkhead split and leaking. The ship was immobilised, with all lighting lost, and soon was temporarily abandoned. After reboarding, however, the fire was brought under control and some top weight jettisoned. No.2 boiler room was half flooded, but No.3 boiler room was intact. The next morning steam was raised in No.3 boiler room, and 'Y' magazine and shell room were flooded to restore the freeboard forward. By the evening of that day, however, the boiler room and machinery had to be shut down as the feed water supply was expended In the early morning of the 25th of October, the ship was taken in tow at 3 knots, but later owing to adverse weather this speed was reduced. By the evening of the 26th the weather had deteriorated so much that COSSACK again had to be abandoned. The next morning she was seen to be settling by the stern, but at mid morning the ship finally sank by the bow a main bulkhead having apparently given way due to heavy pounding. The final loss of COSSACK was attributed to the inferior weather conditions. REMARKS This incident emphasised the need to fit a second auxiliary diesel dynamo well separated from the existing one.
HERO 25th Oct., 1941 D.N.C.4B/R238	Three Near Miss 500 lb. delay action fuzed Bombs	4 weeks	HERO, while lying alongside LATONA which was on fire and sinking in the Mediterranean, was attacked by enemy aircraft. Three near misses occurred about 10 ft. from the starboard side, one abreast the after boiler room, one abreast No.3 gun, and one abaft the stern. The ship's side was buckled from 4 ft. below the upper deck to below the waterline over the after boiler room and engine room, and minor internal structural damage occurred in those compartments. Whipping caused corrugations, which girthed the ship just forward of the after superstructure. All high power was lost and the steering gear jammed, the ship steered by main engines. Minor damage occurred to No.3 boiler, which was shut down due to loss of feed water. Auxiliary machinery sustained minor damage, due to shock. Fighting Efficiency - Not seriously impaired. Speed was reduced to 10 knots for 2½ hours. All H.P. supply was lost, and manoeuvrability was impaired.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LAMERTON November, 1941	One Short 3.9 inch direct action fuzed Shell	Nil	LAMERTON was in action with an Italian submarine when a shell burst about 10 ft. above the forecastle deck forward of 'A' gun. The forecastle deck in vicinity of burst suffered minor damage. Minor damage also occurred to electrical circuits and the fore ring main was cut.
	-		Fighting Efficiency - Not impaired.
JACKAL 1st Dec., 1941 D.N.C.4B/R100	One Contact Torpedo dropped by aircraft	5 months	JACKAL, while moving at 25 knots 60 miles south of Crete, was struck by a torpedo just below the waterline on the port side abreast the steering compartment which was wrecked. Structure abaft the after superstructure was severely damaged and compartments were open to the sea. The steering gear was seriously damaged and put out of action with the rudder jammed at 24° to port. The steering motors were slightly damaged. All electrical gear abaft the after superstructure was destroyed. The main machinery was undamaged.
			Fighting Efficiency - Not seriously impaired. Vessel was steered by main engines at 14½ knots.
PUCKERIDGE 13th Dec., 1941 D.N.C.4B/R94	One Direct Hit 250 kgm direct action fuzed Bomb	7 months	PUCKERIDGE, while proceeding from Portsmouth to Liverpool, was attacked by enemy aircraft and sustained a direct hit on the upper deck just forward of 'Y' gun, to starboard of middle line, the bomb detonating on contact or just below the deck. The side plating, upper and lower decks and the internal structure from keel to upper deck, between the after gun mountings, was severely damaged. The superstructure aft of 'X' gun was wrecked. All compartments abaft the gearing room, except the steering compartment were flooded, including the after magazines and after group of oil fuel tanks. The ship settled by the stern with a heavy list to starboard and the quarter deck awash. The fire main aft was destroyed and a serious fire on the after mess deck was eventually brought under control by steaming astern and washing down aft. The main machinery was undamaged, but all electrical equipment in the damaged area was destroyed. 'Y' mounting and No.2 magazine were wrecked and the 4 inch R.U. ammunition on the upper deck was exploded by the fire.
			Fighting Efficiency - Seriously impaired. 'Y' gun was destroyed 'X' gun in local control and all the after ammunition was lost. The steering gear jammed at 20° to port, but vessel was steered by main engines and could steam at reduced speed.
			could steam at reduced speed.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
KIPLING 17th Dec., 1941	Four Near Miss 500 lbs. direct action fuzed Bombs One "Short" probably 12.6 inch Shell	Nil	KIPLING, during enemy attacks, suffered some near miss bombs 80 yards fine to port. The ship was undamaged except for slight splinter damage to the forward mounting. A "Short" burst 10 yards abreast the starboard torpedo tubes and the hull was pierced by splinters. Superficial damage to structure and fittings occurred on the starboard side. The main W/T aerials were shot away. Fighting Efficiency - Not impaired. The main W/T was temporarily out of action.
THRACIAN 17th Dec., 1941	Bomb and possibly Shell	Beached on territory afterwards occupied by the enemy	THRACIAN ran aground outside Hong Kong Harbour on the 14th December, but was refloated under her own power and docked next day. Repairs were not effected due to heavy shelling and bombing of the island, THRACIAN often being the main target. The ship was undocked with forward tanks and living accommodation flooded, then beached dismantled, and armament used elsewhere.
STANLEY (ex U.S.A.) 19th Dec., 1941	One Contact Torpedo fired from submarine	Sunk	STANLEY while in the Eastern Atlantic was struck by a torpedo on the port side abreast the foremost boiler room. The ship listed heavily to starboard, broke in half and sank very shortly afterwards. REMARKS This incident emphasised the need for personal life saving equipment to be self inflating and that life saving apparatus such as rafts, floats etc. should break free of ship of their own volition if a vessel sinks.
KANDAHAR 19/20th Dec., 1941	One Contact Mine. One 21 inch torpedo fired by own forces	Sunk	KANDAHAR, while operating in the Central Mediterranean, struck a mine under the stern causing severe damage aft. Flooding occurred abaft the engine room and the propellers were lost. All lighting failed due to the flooding of the after main switchboard. Boiler rooms and auxiliary machinery in the engine room were undamaged and serviceable The fire control circuits were out of action and the forward 4.7 inch mountings were hand controlled. All topweight was jettisoned, but the stern settled until the whole of the after end abaft the funnel was under water. Due to the proximity of the Libyan coast and the adverse weather conditions it was not thought practicable to tow KANDAHAR and she was abandoned and sunk by torpedo from JAGUAR about 26 hours after the mining.

L84.			DESTROTERS - 17494E
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MAORI 28th Dec., 1941	Four Near Miss 550 lbs. direct action fuzed Bombs	6 weeks	MAORI was attacked by enemy aircraft and sustained near misses on the port side forward. Extensive splinter damage occurred to hull and fittings above the waterline from the stem to abreast 'A' mounting. Electric cables, oil fuel filling line, D.C.T. and forward mountings were damaged by splinters. Splinters ignited the cordite in port R.U. lockers of 'A' and 'B' guns. Fighting Efficiency - Impaired. Right hand gun of 'A' turret and D.C.T. were out of action.
5th Jan., 1942	One Near Miss direct action fuzed Bomb	Nil	ZULU, while at Hamilton Wharf, Malta, sustained a near miss close to port quarter during an air raid. Superficial splinter damage to hull, superstructure, and fittings aft was caused. One large splinter pierced the hull making a hole 8" x 4" just below lowe deck and broke up on frame 171. Some fragments perforated 165 bulkhead into 'X' shell room, but no damage was caused. Other fragments crossed 'Y' magazine, and one struck a bottle rack which caused the cordite of one 4.7" cartridge to ignite and burn. The after compartments were quickly filled with fumes. 'Y' magazine was partially flooded. Fighting Efficiency - Slightly impaired.
			REMARKS This incident confirmed the results and conclusions of the 4.7" bottle rack venting trials carried out at H.M.S. EXCELLENT. C.A.F.0.1311/42 promulgated instructions to abolish bottle rack doors to facilitate venting.
VIMIERA 9th Jan., 1942	One Moored probably Magnetic Mine 10 fathoms	Sunk	VIMIERA, while in the Thames Estuary near East Spile Buoy, proceeding at 5 knots, sustained a heavy explosion under the forward boiler room. The ship broke in two just abaft the bridge. The forward portion rapidly flooded, drifted away to south westward and finally sank, while the after portion finally grounded and broke up.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
KIMBERLEY 12th Jan., 1942 D.N.C.4B/R234	One Contact Torpedo fired from submarine	2 years	KIMBERLEY, while operating off Tobruk, was struck by a torpedo on the starboard side abaft No.3 mounting followed by a second explosion two seconds later, probably a depth charge primer. The stern structure was wrecked, the major portion being blown away while the upper deck was blown upwards and over ship's side starboard. The after end including No.3 magazine and shell room was open to the sea. A serious fire enveloped the after end immediately after the explosion, but it was eventually extinguished. Both tail shafts 'A' brackets and propellers were damaged and the rudder and steering gear were blown away. Electrical equipment aft was missing or damaged. The roller path of No.3 gun was distorted and the cordite and shell hoist motors were out of action. Fighting Efficiency - Seriously impaired. The vessel was immobilised due to damaged shafts and 'A' brackets. No.3 gun could be fired with reduced efficiency, but all the after ammunition was lost.
HESPERUS 15th Jan., 1942	Rammed submarine	2½ months	HESPERUS, while operating in the Mediterranean, struck an enemy submarine a glancing blow. The keel and garboard strake were torn for 25 ft. and the side framing abreast the engine room was distorted and leaking. The fore end flooded for 30 ft. and three starboard oil fuel tanks, one forward and two aft were flooded. Minor flooding occurred in the engine room from the sea and with oil fuel from the adjacent damaged tank. Fighting Efficiency - Seriously impaired. The endurance was reduced due to loss of oil fuel.
<u>ISIS</u> 17th Jan., 1942	Near Miss Bombs	Indeterminate	Maximum speed was reduced due to flooding and the possibility of increased structural damage. ISIS, during an air attack on Singapore, suffered minor damage from near miss bombs and required docking. The ship was under repair for bomb damage caused on 15th June, 1941.
MATABELE 17th Jan., 1942	Torpedo	Sunk	MATABELE, while escorting a convoy to Russia, was struck by a torpedo probably amidships. The ship blew up and sank in about 3 minutes and only two members of the crew survived.

186.			DESTRUITAND - 1/42
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
JUPITER 17th Jan., 1942	One Direct Hit 4 inch direct action fuzed Shell	Nil	JUPITER was in action with a Japanese submarine when a shell hit the cradle of the right gun of 'A' mounting. Severe damage occurred to 'A' mounting and gunnery equipment. Fighting Efficiency - Impaired. 'A' mounting was out of action.
GURKHA (2nd) Ex 'L' Class 17th Jan., 1942	One Contact Torpedo fired from submarine	Sunk	GURKHA, while proceeding off the Libyan Coast at $17\frac{3}{4}$ knots, was struck by a torpedo on the starboard side in the vicinity of the wardroom. A hole about 20 ft. to 30 ft. long was seen extending from 1 ft. above the waterline down to an undetermined depth. Extensive structural damage occurred abaft engine room and the after superstructure partially collapsed. Immediate flooding in vicinity of the explosion spread rapidly to most compartments abaft the engine room and the engine room flooded slowly. The firemain was fractured. A fire, fed by oil from the after tanks enveloped the after end and R.U. ammunition ignited and exploded. The after torpedo tubes jammed and were out of action. The forward guns were undamaged, but the after gun was out of action. The switchboard was wrecked and the electrical supply failed. GURKHA was immobilised listing heavily to port finally turning on her beam ends and sinking just over $1\frac{1}{2}$ hours after the torpedo had struck.
			REMARKS This incident emphasised the need for this class of ship to have watertight hatch covers fitted to the hatches to the gearing room and engine room to prevent these compartments becoming flooded in the event of damage to the searchlight lobby.
LEGION 26th Jan., 1942	One <u>Near</u> <u>Miss Bomb</u>	Nil	LEGION, while in the Mediterranean, was attacked by enemy aircraft and a near miss caused minor structural damage. Fighting Efficiency - Slightly impaired. The asdic gear was out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
THANET 27th Jan., 1942 D. N.C.4B/R177	Several in number <u>Direct Hit</u> direct action fuzed <u>Shells</u>	Sunk	THANET, while in action against Japanese destroyers, was hit by several shells one of which perforated the port side and exploded in the engine room. The ship was immobilised with steam pipes cut and a heavy list to starboard. All lighting failed and the after part was untenable due to escaping steam. THANET settled slowly and was abandoned whilst still being heavily engaged by the enemy finally sinking 15 to 20 minutes after first being attacked.
BELMONT (ex U.S.A.) 31st Jan., 1942	Torpedo fired from submarine	Sunk	BELMONT, while operating in the Western Atlantic, was torpedoed and sunk by an enemy submarine. No further information available.
WESTCOTT 2nd Feb., 1942	Rammed submarine	2 months	WESTCOTT while operating in the Mediterranean rammed an enemy submarine. The port side plating forward for 65 ft. was set in a maximum of 12 inches above and below the lower deck over a depth of 5 ft. Minor leaks occurred in forward compartments and No.l oil fuel tank. Fighting Efficiency - Slightly impaired.
FARNDALE 9th Feb., 1942 D.N.C.4B/R109	One <u>Direct</u> <u>Hit 250 kgm</u> delay action fuzed <u>Bomb</u>	6 months including refit	FARNDALE, while moving off the Libyan coast, south of Crete, at 18 knots was attacked by enemy aircraft. A bomb hit the fore side of bridge, perforated the forecastle and upper decks, passed out of the ship's side port and burst under water. The side plating port, abreast the forward boiler room was severely buckled and set in, and minor damage occurred to internal structure and the starboard side plating. The forward boiler room flooded, while slow flooding of the after boiler room forward oil fuel tanks and L.P. room took place. Minor flooding occurred in the engine room. Fighting Efficiency - Severely impaired. The ship was immobilised due to flooding of boiler rooms. Guns could be fired in local control only due to the flooding of L.P. room.

188. DESTROYERS - 1942 SHIP NATURE OF TIME OUT OF			
SHIP DATE OF INCIDENT	NATURE OF ATTACK	ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MAORI 12th Feb., 1942 D.N.C.4B/R119	One Direct Hit size unknown delay action fuzed Bomb	Sunk	MAORI, during an enemy air raid, while at No.3 buoy, Grand Harbour, Malta, was hit by a bomb on the upper deck. The bomb pierced the deck and exploded in the gearing room. The gearing room was wrecked and its bulkheads destroyed, while the forward bulkhead of the engine room was seriously damaged. Over the engine and gearing rooms the upper deck was set up and split. The after boiler room, engine room, gearing room and after oil fuel tanks were flooded. A serious fire was started in the gearing room by lubricating oil and being fed by oil from the damaged fuel tanks, rapidly spread to the engine room and enveloped the after end of the ship. R.U. ammunition exploded. The main switchboard was destroyed. About 45 minutes after the bomb detonated another explosion occurred, thought to be the warhead magazine containing 32 depth charges. The fore end of the after superstructure collapsed into the gearing room. The fore part of the vessel remained afloat for 48 hours.

SHIP	NATURE OF	TIME OUT OF	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
DATE OF INCIDENT	ATTACK	ACTION	
WORCESTER 12th Feb., 1942 D.N.C.4B/R93	Six Direct Hit One "Short" 5.9 inch direct action fuzed Shells	14 weeks including refit	WORCESTER, while in action with SCHARNHORST or GNEISNAU 20 miles off Rotterdam at 30 knots sustained 6 direct hits and 1 short from shells. Hit No.1 on the starboard deck edge, abreast the 12 pounder which was put out of action. The deck and sheer strake was holed and minor splinter damage occurred. Hit No.2 on the oerlikon R.U. locker, forecastle deck, starboard. The ammunition was ignited and splinters penetrated the W/T T.S. and surrounding compartments. Hit No.2 in forward boiler room, just above the waterline starboard, bursting in the peace tank. The ship's side was holed and bulged abreast the boiler room, the upper deck damaged, peace tank destroyed and the boiler room flooded. Hit No.4 in the after boiler room above the waterline starboard. A hole 3½ ft. by 1 ft. extended to the upper deck and the peace tank was badly damaged. Splinters pierced the forward bulkhead and caused partial controlled flooding of the forward boiler room. Hit No.5 on the port side, near stem, burst in paint room. The ship's side starboard, forecastle and upper decks were bulged and pierced by splinters. The stem to 11 bulkhead was flooded. Hit No.6 at base of foremost funnel, port side. It made a large hole in the funnel casing and caused splinter damage to the bridge structure. Short was on the starboard side abreast 'X' gun causing splinter damage to wardroom and surrounding compartments which flooded. Fighting Efficiency The vessel was temporarily immobilised due to loss of feed water and the forward boiler room was flooded. A' gun was in action with R.U. ammunition only and other main armament was out of action due to casualties. The after magazine and shell room was flooded. The W/T was out of action. WCRCESTER steamed 80 miles at 6½ knots on the after boiler room. REMARKS The seacock for admitting salt water into the feed tanks was too small and supply had to be supplemented by hose.

190。			DESTRUCTED STATE
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ELECTRA 27th Feb., 1942	Number unknown Direct Hit Shells	Sunk	ELECTRA, while in action with Japanese landing forces off Sourabaya, received a direct hit from a shell in the port side of the after boiler room. All steam was immediately lost. The telemotor leads to steering gear and all bridge communications failed. The vessel listed slightly to port and preparations were made to abandon ship. ELECTRA engaged enemy destroyers with all guns firing in local control, and was repeatedly hit until only 'Y' gun remained in action. Extensive fires started forward and the list to port increased. The ship was abandoned and sank slowly by the bow about $\frac{3}{4}$ of an hour after the first hit.
JUPITER 27/28th Feb., 1942	One Contact Torpedo	Sunk	JUPITER, while in action with Japanese landing forces off Sourabaya, moving at 30 knots, was struck by a torpedo on the starboard side abreast the bulkhead to the engine room and after boiler room. The explosion left the starboard side with a rectangular area 20 ft. long, 8 ft. wide, with its upper edge about 2 ft. from the upper deck forced in to form a central hole about 8 ft. by 6 ft. The upper deck was lifted and buckled in the vicinity of the torpedo tubes which had jumped from the roller paths. The engine room and after boiler room flooded immediately and the forward boiler room flooded slowly. All lighting failed and the ship was immobilised but the secondary lighting functioned correctly. JUPITER was abandoned and sank 4 hours after the torpedo hit.
ENCOUNTER 1st March, 1942	(i) Shell "Shorts" (ii) Scuttled	Sunk	ENCOUNTER was in action with Japanese cruisers and destroyers in the Java Sea when several shorts burst close to the ship. The forced lubrication system was put out of action by a fractured suction pipe, probably by a splinter. Due to overheated bearings and C.S.A. smoke which had been drawn down the ventilation the engine room became untenable. The ship was immobilised with only 75% of the armament in action. ENCOUNTER was scuttled and sunk by her own personnel.
STRONGHOLD 2nd March, 1942	(i) Several Direct Hit Shells (ii) Probably a Torpedo fired from cruiser or destroyer	Sunk	STRONGHOLD when engaged in action with Japanese cruisers and destroyers sustained direct shell hits on the after end in galley flat, on the forward torpedo tubes and at the fore end of the bridge. Speed was appreciably reduced due to hull damage. Further shell hits caused considerable internal damage. The engine room was on fire and was abandoned together with the boiler rooms. A direct hit on the pom pom set fire to warheads in the torpedo tubes. The ship was immobilised and abandoned. Within 5 minutes STRONGHOLD was torpedoed or blew up, and sank immediately.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WHITSHED 5th March, 1942 D.N.C.4B/R96	One Non-Contact Mine 17 fathoms	6 months including refit	WHITSHED was proceeding at 16 knots off Yarmouth when an explosion occurred in the vicinity of the gland compartment. The hull plating corrugated abreast the starboard after fuel tanks, and bulkheads abaft the after boiler room were slightly buckled on the starboard side. Slow flooding of the gland compartment, warhead magazine and after oil fuel tanks took place, and minor controlled flooding occurred in the engine room. The inner sliding foot of the port H.P. and the casing of the starboard H.P. turbine were fractured and the keeps to the sliding feet of the L.P. turbines were distorted. Auxiliary machinery and castings were damaged by shock. Both dynamos failed due to shock, but the port dynamo was restarted and lighting restored. Fighting Efficiency - Severely impaired. The ship was temporarily immobilised but was later able to proceed at 5 knots on the port engine. The main W/T and gyro was out of action due to shock.
•			REMARKS This incident emphasised the need for:- 1. The supply of Oldham lamps to be increased. 2. The supply of "BIJOU" torch batteries to be increased and a more robust type of torch supplied. 3. A separate steam ejector to be fitted in the gland compartment to facilitate pumping in an emergency. This is the only main compartment not so fitted.
FERNIE 14th March, 1942	Number unknown "Shorts" Shell	l week	FERNIE, while in the English Channel, suffered minor damage by splinters from shorts. Fighting Efficiency - Not impaired.
BLENCATHRA 14th March, 1942	Number unknown "Shorts" Shell	3 weeks	BLENCATHRA, while in the English Channel, suffered minor damage by splinters from shorts. Fighting Efficiency - Not impaired.
WINDSOR 14th March, 1942	One Direct Hit 4 inch direct action fuzed Shell	2 months	WINDSOR sustained a direct hit on the starboard after motor boat and suffered extensive but minor splinter damage. The electrical circuits to the torpedo control position were pierced by splinters. Fighting Efficiency - Not impaired.

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192。			DESTRUIDAS 1742
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VORTIGERN 15th March, 1942	Torpedo fired by E-boat	Sunk	VORTIGERN, while operating in the North Sea off Cromer, was torpedoed and sunk by E-boats. No further information available.
HEYTHROP 20th March, 1942 D.N.C.4B/R201	One Contact Torpedo fired from submarine	Sunk	HEYTHROP, while on an A/S sweep in the Mediterranean moving at 14 knots, was struck by a torpedo in the after mess deck, port side about 60 ft. from the stern. An immediate 10° list to starboard took place and the ship was almost severed at No.3 mounting with the after end only attached by the starboard side plating. Immediate flooding of most compartments abaft the gearing room occurred but flooding in the gearing room was controlled. The main suction abaft the engine room was out of action. No.3 gun was blown overboard and No.2 gun was badly damaged and out of action. A minor fire occurred in the canteen. 3 hours after the torpedo struck an explosion occurred in the after boiler due to the loss of feed water and the boiler was shut down. The ship was taken in tow at 5 knots. Shortly afterwards HEYTHROP had trim by the stern with a heavy list to starboard, and 2 hours after the boiler explosion the tow was slipped. A short while later the ship was abandoned with a 50° list and she finally turned on the starboard side and sank by the stern.
KINGSTON 22nd March, 1942	One Direct Hit 15 inch direct action fuzed Shell	Indeterminate See Pages 193 196 and 197	KINGSTON, while engaging an enemy force of a battleship and cruisers in the Mediterranean, sustained a direct hit from a shell. The pom-pom and oerlikon structures and the upper deck in the vicinity of the burst were severely damaged. A fire was started in the engine room but it was later extinguished. Fighting Efficiency - Seriously impaired. The vessel was able to steam with one boiler at 16 knots.
LIVELY 22nd March, 1942	One "Short" 15 inch direct action fuzed Shell	Nil	LIVELY was engaging an enemy battleship in the Mediterranean when a salvo of 15 inch shells burst close to the port side and the base plate of one holed the side plating forward near the waterline. Controlled flooding took place in two forward mess decks. Fighting Efficiency - Slightly impaired. Maximum speed was reduced to 20 knots.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HAVOCK 22nd March, 1942	Number unknown "Short" 15 inch Shells	Indeterminate See Page 195	HAVOCK, while engaging an enemy battleship in the Mediterranean, suffered extensive splinter damage abreast the machinery spaces from shorts. All boiler rooms and the engine room were holed and partially flooded. The after boiler room was out of action due to damaged boilers. Fighting Efficiency - Seriously impaired. The speed was reduced to 15 knots.
HAVOCK 23rd March, 1942	Bomb	Indeterminate See Page 195	HAVOCK received further damage during an air raid on Malta. No details available.
AVONVALE 23rd March, 1942	Number unknown size and type unknown Bombs	14 weeks including collision repairs	AVONVALE, while in the Mediterranean, was attacked by enemy aircraft. Serious damage impaired the structural strength of the ship. Collision damage was sustained forward. No further information available.
KINGSTON 23rd March, 1942	Number unknown size and type unknown Bombs	Indeterminate See Pages 196 and 197	
LEGION 23rd March, 1942	One Near Miss 500 kgm direct action fuzed Bomb	Indeterminate See Page 194	LEGION, while operating 10 miles off Malta, was attacked by enemy aircraft and suffered a near miss amidships on the starboard side. The ship's side abreast the engine room was severely damaged and the forward bulkhead to the engine room was split. Controlled flooding occurred in the engine and after boiler room. Damage was done to machinery in the engine room, gearing room and after boiler room. The starboard H.P. turbine feet were fractured. Fighting Efficiency - Seriously impaired. The vessel was able to proceed at 20 knots. Flooding was only just within the capacity of the pumps.

SOUTHWOLD 24th March, 1942 (i) One Non- Contact Mine (ii) Number unknown Near Miss delay action fuzed Bombs Sunk Southwold was aiding BRECONSHIRE in the Mediterranean when a mine exploded under the engine room. The hull was severely damaged, engine and gearing rooms wrecked, and upper deck was split over the engine room. Slow flooding of engine room from gear room through bulkhead shaft glands, spread to after boiler room through a large fra in the bulkhead. Both boiler rooms were shut down and the ship listed slightly to starboard. All lighting was temporarily lost but it was later restored with diese generators. Whilst in tow, the side plating port and starboard in the vicinity of the engine ro split to the upper deck. During the tow an enemy aircraft attacked SOUTHWOLD and in miss bombs possibly caused further damage and flooding. SOUTHWOLD settled slowly with considerable sag and an increased list to starboard at was finally abandoned, afterwards sinking. LEGION was at Boiler House Wharf Malta, in hand for bomb damage repairs sustained or March, 1942, when an air raid developed. The direct hits cocurred simultaneously of forecastle and 'B' gun deck and exploded about lower deck level. The near miss fell on the jetty to port, close alongside. In the vicinity of the life fore end was split wide open. LEGION settled by the bow, turned on port side and sank in less than five minutes. JAGUAR Zéth March, 1942 Two Contact Torpedoes The first torpedo struck between the funnel and the bridge on the starboard side followed almost immediately by another between the funnel and the pom-pom. The shr
March, 1942 three) Direct Hit One Near Miss Bombs March, 1942, when an air raid developed. The direct hits occurred simultaneously forecastle and 'B' gun deck and exploded about lower deck level. The near miss fell on the jetty to port, close alongside. In the vicinity of the left the fore end was split wide open. LEGION settled by the bow, turned on port side and sank in less than five minutes. JAGUAR Two Contact Sunk JAGUAR, while escorting a convoy near Tobruk at 15 knots, was struck by two torpedoes. The first torpedo struck between the funnel and the bridge on the starboard side
26th March, 1942 Torpedoes The first torpedo struck between the funnel and the bridge on the starboard side
submarine listed heavily to starboard and broke in two. A serious fire started in the vicing of the galley and rapidly spread to the fore mess decks and entire bridge structure. The fore part sank within one minute, and the after end in about three minutes.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ECLIPSE 29th March, 1942 D.N.C.4B/R255	Three Direct Hit Two "Short" probably 5.9 inch direct action fuzed Shells	5 weeks	ECLIPSE, while north of the Scandinavian Peninsula, was engaged in action with three German NARVIK class destroyers. Two Direct Hits occurred on the upper deck, one bursting in the lobby at the fore end of the after superstructure and another on the upper deck outside, both to starboard. Holes made in the deck were 3½ ft. by 2½ ft. and 2 ft. by 2 ft. Extensive but not serious damage was done by splinters which pierced superstructure and the upper and lower decks. Minor fires started aft, and some 4.7 inch R.U. charges were ignited by splinters. H.P. and L.P. circuits suffered minor damage. One Direct Hit on the aft side of the forward funnel perforated both casings but did not explode. Two Shorts burst on the waterline under the starboard flare and splinters pierced the ship's side above the waterline and upper and lower decks. Minor buckling of the side plating and internal structure, starboard, occurred. Fighting Efficiency - Slightly impaired. A reduction of speed was made to prevent flooding forward. The ammunition supply to "X" gun was temporarily lost due to damage and casualties to supply parties.
BEAUFORT 2nd April, 1942.	One Near Miss 1,000 lbs. delay action fuzed Two possibly three Near Miss 150 lbs. direct action fuzed Bombs		BEAUFORT, while operating in the Mediterranean, and moving at 20 knots was attacked by enemy aircraft. A near miss 1,000 lbs. bomb fell 12 ft. to starboard and exploded underwater. Two or three 150 lbs. bombs fell about 10 ft. to port abreast the gearing room, and burst on impact. The outer bottom plating starboard abreast the boiler rooms was set in 6 inches. Minor flooding occurred through strained rivets and laps and butts of plating. Fighting Efficiency - Not impaired.
HAVOCK 2nd April, 1942	Near Miss Bombs	Indeterminate undergoing temporary repairs. See Page 193	HAVOCK and PENELOPE during a heavy air raid on Malta Dockyard were the main targets. HAVOCK received minor damage due to many near misses. Fighting Efficiency - Not impaired.
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196.			DESTROYERS - 1942
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LANCE 4th April, 1942	Two Direct Hit size and type unknown Bombs	Indeterminate See Page 197	LANCE, during an air raid on Malta, received two direct hits one of which did not explode The extent of damage is not known but vessel was reported as being probably seaworthy. Note: - See damage received on 5th April, 1942.
LANCE 5th April, 1942	One <u>Near</u> <u>Miss</u> size and type unknown Bomb	Indeterminate See Page 197	LANCE was attacked during an air raid on Malta Dockyard. The ship's side was blown in by a bomb which exploded in No.2 dock. LANCE was blown off the blocks and was partially submerged in dock.
GALLANT 5th April, 1942	Near Miss Bombs	Total Loss	GALLANT, while at Malta Dockyard undergoing repairs to the mine damage of 10th January, 1941, was attacked during an air raid. Several near misses caused extensive splinter damage. The ship flooded to the waterline and was beached at Pinto Wharf and abandoned until conditions improved. Guns and important machinery were landed.
TENEDOS 5th April, 1942	Two Direct Hit 250 lb. Two Near Miss direct or short delay action fuzed Bombs	Sunk	TENEDOS was at anchor with stern secured to wharf in Colombo Harbour when an enemy air attack occurred. Two direct hits aft, a near miss astern, and another abreast the foremost funnel were sustained. The severe damage aft caused the stern to sink rapidly.
KINGSTON 5th April, 1942	Near Miss Bombs	Indeterminate See Pages 192 193 and 197	KINGSTON, while at Malta Dockyard undergoing temporary repairs to damage received on 22nd March, 1942, was further damaged during an air raid. Many near misses caused splinter damage to the hull and upperworks. Fighting Efficiency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VAMPIRE (H.M.A.S.) 9th April, 1942	Three (at least) Direct Hit Five (at least) Near Miss size and type unknown Bombs	Sunk	VAMPIRE, while south of Trincomalee moving at 23 knots, was attacked by enemy aircraft. Near Misses fell abreast 'B' gun, port and starboard and 2 ft. abaft stern followed by more near misses off the port and starboard beam. The mounting of 'A' gun was bent and 'B' gun could not train. A direct hit occurred in the after boiler room and main and auxiliary steam lines were cut. Hits followed in rapid succession. The ship sagged badly with a heavy list to port and her speed was only one knot. Orders were given to abandon ship and whilst this was being carried out the vessel was continually bombed. A direct hit occurred on the forward end of the torpedo tubes, but the warheads did not explode. The ship broke in half and the fore end sank. The after magazine then exploded and the stern sank 20 minutes after the commencement of the bombing. About two minutes later a heavy underwater explosion occurred, possibly from the depth charges.
LANCE 9th April, 1942	Number unknown Near Miss size and type unknown Bombs	Sunk	LANCE, while under repair in No.2 dock at Malta Dockyard, sustained further damage during an air raid. The ship was nearly upright in dock with stern submerged but with topsides amidships and forecastle above waterline. Guns and fittings were stripped and removed.
KINGSTON 11th April, 1942	Bomb	Sunk	KINGSTON while under repair in No.4 dock at Malta Dockyard received further damage during an air raid. The ship broke in two and turned on her beam ends. The dock was seriously damaged and flooded and it was proposed that when repaired it should be pumped dry and KINGSTON broken up.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
QUORN 20th April,1942 D.N.C.4B/R103	One Moored Contact Type 'R' Charge 90 lb. Mine (German)	14 months	QUORN, while steaming at 20 knots in the North Sea, struck a mine on the port side of the forward boiler room at the fore end at about bilge keel level. A hole 9 ft. by 15 ft. was made in the side of the ship and the forward bulkhead of the forward boiler room below the lower deck was severely damaged on the port side. Immediate flooding occurred of the forward boiler room and compartments in the vicinity Minor flooding took place on the lower deck. No.1 boiler moved to starboard, and the main and auxiliary steam pipes were damaged. The H.P. and L.P. failed, and the port diesel dynamo was shattered.
			Fighting Efficiency - Severely impaired. No.1 boiler was out of action and No.2 boiler was shut down temporarily. The vessel was immobilised and taken in tow. Due to loss of power the guns could only be fired in local control. REMARKS This incident emphasised the necessity for the feed systems to No.1 and No.2 boilers to be isolated. This would have allowed QUORN to proceed under her own power.
COTSWOLD 20th April,1942 D.N.C.4B/R104	One Moored Magnetic charge 475 lb. Mine (German) 16 fathoms	ll months	COTSWOLD, while proceeding at 15½ knots off Orford Ness, sustained an explosion under the stabiliser compartment. The bottom plating was fractured at the forward bulkhead of Nos.1 and 2 oil fuel tanks from 11 ft. below the forecastle deck port to a similar position starboard. The keel in this vicinity was blown up a maximum of 28 inches over a length of 50 ft. and the bottom bulged in on the starboard side. The fore and aft bulkheads of Nos.1 and 2 oil fuel tanks were severely damaged. Both the upper and forecastle decks were buckled and the lower deck fractured. The hull was corrugated aft due to whipping. No.1 magazine and No.1 boiler room were completely flooded and spaces between these compartments were flooded up to the waterline. A minor oil fuel fire occurred on the upper deck. All lighting failed due to the loss of steam. No.2 boiler was shut down due to loss of feed water and minor damage occurred to No.1 boiler and auxiliaries.
*			Fighting Efficiency - Severely impaired. The ship was immobilised and taken in tow. Due to risk of further damage if fired, the forward guns were out of action and ammunition had been lost by the flooding of the forward magazine. The after guns could have been fired in local control only.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BEAGLE 1st May, 1942	"Shorts" Shell	Ni.1	BEAGLE, while in action with German destroyers, sustained superficial damage from splinters.
			Fighting Efficiency - Not impaired.
BULIDOG 1st May, 1942	"Shorts" Shell	Nil	BULLDOG, while in action with German destroyers, sustained damage to the hull and superstructure above the waterline caused by splinters. Some tubes to No.1 and No.3 boilers were pierced by splinters.
			Fighting Efficiency - Slightly impaired. Type 271 radar was out of action.
AMAZON 1st May, 1942	Two Direct Hit several "Shorts" size and type unknown Shells	10 weeks	AMAZON, during an engagement with German destroyers, sustained a direct hit on the wheelhouse and one on the searchlight platform. Extensive splinter damage was caused by these hits and by several shorts. The ship's side was pierced in the engine room and boiler room. Fighting Efficiency - Seriously impaired. The telegraphs, after steering, 'B' gun and starboard pom-pom were out of action.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
FORESIGHT 2nd May, 1942 D. N. C. 4B/R247	Four Direct Hit 5.1 inch direct action fuzed Shells	2 months	FORESIGHT, while proceeding at 28 knots engaging German destroyers off North Russia, sustained four direct hits with shells. Hit No.1 was aft in the engineer's cabin starboard, about 6 ft. above the waterline. The ammunition hoist was wrecked and minor splinter damage occurred. The wardroom flat flooded through the shell hole, and the shell room through splinter holes. Minor splinter damage occurred to electric leads. Hit No.2 was in the torpedomen's mess starboard. Minor structural but extensive splinter damage occurred. The L.P. switchboard room was wrecked and the electric circuits between T.S. and the after guns were cut. No.3 oil fuel tank and the suction system to No.1 boiler were flooded. Hit No.3 was on the upper deck starboard over No.3 boiler room. Minor structural but serious splinter damage occurred. The main steam pipes, No.3 boiler, firemain and the Downton suction were pierced. All steam and electrical power was lost. Hit No.4 on the R.D.F. office, port, burst in the boatswain's R.U. store causing minor structural and splinter damage. Fighting Efficiency - Impaired. The ship was temporarily immobilised with a 12° list to starboard. All guns were in local control although 'X' gun was temporarily out of action due to loss of ammunition. The starboard engine wasout of action and the ship proceeded at 15 knots on No.1 boiler and port engine.
			REMARKS This incident emphasised the need for:- 1. Each oil fuel pump to be fitted with a sluice valve and hose connection to enable a boiler to be fed by a fuel pump in another boiler room whilst using its own pumps for pumping oil tanks on its own end of the ship. 2. The Downton suction system to be as low down in the ship as possible for protection and bulkhead valves to be fitted. 3. A longer lead of suction hose for portable pump and stronger armour protection for suction hoses necessary. 4. A second 70 ton electrical portable pump to be supplied.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF	PRIEF ACCOUNT OF DAMAGE AND LESSONS LEADING
FORESTER 2nd May, 1942 D.N.C.4B/R247	Three Direct Hit several "Shorts" 5.1 inch direct action fuzed Shells	ACTION 19 weeks	FORESTER, while engaging German destroyers at 30 knots off North Russia, came under shell fire. Hit No.1 on the port side of the forward boiler room, pierced a steam drum, the bulkhead between boiler rooms and passed out through the ship's side without exploding. Hit No.2 seriously damaged 'B' gun. Hit No.3 shattered the breech of 'X' gun. Severe splinter damage occurred to the ship's side and superstructure from the hits and the many shorts. Multicore cables to 'A' and 'B' guns, T.S. and after group and other electric circuits were cut. The firemain and oil fuel filling line were punctured. Fighting Efficiency - Severely impaired. The vessel was temporarily immobilised, but was later able to proceed under her own
ALBRIGHTON 5th May, 1942	Number unknown "Short" size and type unknown Shells	Nil	power at slow speed. The forward boiler room, 'B' and 'X' mountings and R.D.F. were out of action. ALBRIGHTON, while proceeding off Cap D'Ailly, France, engaged some light enemy forces. Splinters from shorts caused superficial damage. Fighting Efficiency - Not impaired.
KIPLING 11th May, 1942	One Direct Hit One Near Miss size unknown delay action fuzed Bomb	Sunk	KIPLING, while operating in the Mediterranean, was attacked by enemy aircraft. A direct hit was sustained at the starboard after end of the engine room and a near miss abreast the port side. The ship's side plating was probably damaged down to the keel, and, after the flooding broke her back, ship was held together by the upper deck. Immediate flooding took place in the engine room, gearing room, after oil fuel tanks and after boiler room, and the ship took a heavy list to port. The torpedoes and tubes were thrown overboard by the force of the explosion. Within ten minutes the ship sank by the stern.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LIVELY 11th May, 1942	One Direct Hit size unknown delay action fuzed several Near Miss Bombs		LIVELY, while operating in the Mediterranean, was attacked by enemy aircraft. A direct hit was sustained on 'B' gun deck just abaft the gun and it exploded at lower deck level. Several near misses occurred abreast 'A' mounting. The vessel immediately settled by the bows and listed heavily to starboard. A heavy explosion occurred forward and the vessel sank stern first within 3½ minutes of the first attack.
JACKAL 11/12th May, 1942	One Direct Hit size unknown delay action fuzed several Near Miss Bombs One Torpedo 21 inch fired by our own forces		JACKAL, while in the Mediterranean proceeding at 30 knots, was attacked by enemy aircraft. A bomb pierced the upper deck over the after boiler room, passed through the boiler and out through the bottom to explode beneath the keel. Two near misses off the port side caused minor damage. Immediate flooding of both boiler rooms and the engine room occurred and the gearing room flooded slowly. All steam and electrical power was lost. An oil fuel fire started in the forward boiler room about 20 minutes after the attack and spread rapidly. Further flooding took place aft probably due to the damage caused by the near misses. The ship settled by the stern with a 60 list to starboard. JACKAL was finally abandoned and sunk by a torpedo from JERVIS about 83/4 hours after being hit by the bomb.
WOLVERINE 16th May, 1942	One Near Miss approximately 250 lbs. delay action fuzed Bomb	2 weeks	WOLVERINE, while in Plymouth Sound during an air raid, sustained a near miss about 15 yards to starboard abreast the engine room. No structural damage was sustained. A minor oil fuel leak occurred in the bulkhead of the warhead magazine. The inboard sliding foot of the starboard H.P. turbine was cracked and minor damage occurred to auxiliary machinery. Fighting Efficiency - Slightly impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MARTIN 27th May, 1942	One Near Miss size unknown delay action fuzed Bomb	4 days	MARTIN, while off North Russia at 17 knots, was attacked by enemy aircraft. A near miss fell 15 yards to port abreast the forward bulkhead of the engine room. No structural damage was sustained. The bedplates of No.4 port generator and the diesel oil transfer pump, both cast iron, were fractured, and the port air compressor was out of action due to shock. Shock caused the temporary dislocation of the port side electrical installations.
			Fighting Efficiency - Not impaired.
			REMARKS This incident emphasised the necessity for:- 1. The turbo generators to have more holding down bolts and the bedplate to be completely supported on wooden blocks. 2. The cast iron body of the diesel transfer and similar small pumps to be replaced by gurmetal.
JANUS 5th June, 1942	Number unknown Near Miss size and type unknown Bombs	1 month	JANUS, while operating in the Mediterranean, was attacked by enemy aircraft and near miss bombs caused damage to machinery. Fighting Efficiency - Effect not known.
GROVE 12th June, 1942	Torpedo fired from submarine	Sunk	GROVE was torpedoed and sunk whilst operating off the Libyan Coast. No further information available.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BEDOUIN 15th June, 1942	Twelve Direct Hit size and type unknown Shells One Contact Torpedo dropped by aircraft	Sunk	BEDOUIN during an action with an enemy force of two cruisers and four destroyers near Pantelleria was hit by shellfire. Hit No.1 exploded on the stemhead, tearing away about 20 square ft. of plating. Hit No.2 entered the after lower messdeck causing a hole about 9 square ft. above the waterline with considerable perforation of the hull and decks in the vicinity. This shell also wrecked the A/S cabinet. Hit No.5 exploded in No.1 boiler room fans and fractured the auxiliary superheat steam pipe in the boiler room. Hit No.4 carried away the mast just above the H.A. director. Hit No.5 hit the bridge port side and wrecked the director. Hit No.6 exploded in the radar hut, port side of flag deck. Hit No.7 entered the forward cabin flat tearing a large hole in the starboard side above the waterline. Hit No.8 exploded in the gearing room perforating the auxiliary exhaust line. It als wrecked the casing for the port main gearing, spraying the room with oil causing a serious fire, and the gearing room ventilation was put out of action. Hit No.9 entered the C.P.O's mess but failed to explode. Hit No.10 exploded on 'X' gun deck igniting ready use cordite. Hit No.11 entered the after cabin flat, exploded and made a hole about 9 sq. ft. on the waterline. Hit No.12 exploded in the engine room and put the starboard engine out of action. The ship was immobilised and taken in tow by PARTRIDGE but the tow was later slipped when the enemy reappeared. Shortly afterwards an enemy plane attacked the ship with storpedo which struck on the bulkhead between the engine room and gearing room. The ship sank a short time later.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
AIREDALE 15th June, 1942 D.N.C.4B/R209	One possibly more <u>Direct</u> Hit Four Near Miss size and type unknown <u>Bombs</u> Torpedo and gunfire of our own forces	Sunk	AIREDALE, while escorting a convoy west of Crete, was attacked by enemy aircraft. Two heavy near miss bombs one to port and one to starboard, and a direct hit by a heavy bomb and possibly several smaller ones occurred in the vicinity of the after mounting. Two further near misses fell a few seconds later. A heavy explosion which occurred aft was thought to be the 4 inch magazine or depth charges blowing up. Structure abaft the searchlight platform was wrecked. A serious fire was started in the after boiler room. The ship settled by the stern with a list to port and 20 minutes after the attack, was abandoned and sunk by our own forces.
HASTY 15th June, 1942 D.N.C.4B/R208	One Contact Torpedo fired by submarine. Sunk by torpedo fired from our own forces	Sunk	HASTY was operating in the destroyer screen to NEWCASTLE and ARETHUSA west of Crete, and proceeding at 25 knots when she was struck by a torpedo on the port side, forward of "A" gun. Structure forward of "A" gun was blown away. Immediate flooding of the fore end occurred and both boiler rooms leaked. HASTY was abandoned and sunk by torpedo from HOTSPUR.
PARTRIDGE 15th June, 1942 D.N.C.4B/R116	Three Direct Hit direct action fuzed Shells	2 months	PARTRIDGE while proceeding at 30 knots in action with enemy cruisers and destroyers in the Mediterranean sustained three shell hits. Hit No.1 occurred on the lip of the forward torpedo tubes which were trained to port and the warheads caught fire. The air vessels of two torpedoes burst, throwing the burning warheads overboard to port and forcing the remaining part of the torpedoes through the rear doors of the tubes and over the starboard side. A 12 inch hole was made in the upper deck and the main steam pipe was damaged. The port turbo generator was damaged by fire. Hit No.2 on the cordage locker caused minor splinter damage. Hit No.3 on the starboard Oerlikon platform caused minor damage. Fighting Efficiency - Impaired. The ship was temporarily immobilised but was later able to proceed at 20 knots on one engine. The forward torpedo tubes were damaged. REMARKS This incident confirmed the efficiency of duplex warhead safety arrangements - there was no detonation.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
NESTOR (H.M.A.S.) 15/16th June, 1942 D.N.C.4B/R173	Two Near Miss size unknown delay action fuzed Bombs Sunk by own forces	Sunk	NESTOR, while escorting a convoy in the Mediterranean, was attacked by enemy aircraft. Two near misses were sustained, one 50 ft. to starboard abreast the bridge and another close alongside to port. The vessel was severely shaken. The hull was extensively distorted and holed below the waterline on the port side of the forward boiler room. There was a large hole above the waterline about 5 ft. by 2½ ft. and 2 ft. forward of the bulkhead between the boiler rooms. Starboard side plating was buckled but not holed. Both boiler rooms flooded. Oil from the forward fuel tanks started a fire in the forward boiler room, but this was later controlled. All power was lost. The ship settled by the bows with a 10° list to port. Top weight was jettisoned. NESTOR was taken in tow but approximately 11 hours after the attack the ship was finally abandoned and sunk by our own forces. REMARKS This incident emphasised the need for:- 1. Dynamos in destroyers to be separated. 2. Supply of hand torches to be increased. 3. A hand pump to be fitted in the gearing room for pumping lubricating oil when shafts are trailing.
BADSWORTH 16th June, 1942 D.N.C.4B/R174	One Contact probably type Q charge 80 lb. Mine	5 months	BADSWORTH, while entering Grand Harbour Malta at 10 knots, struck a mine on the starboard side abreast the forward mounting. A hole 12 ft. by 15 ft. was made in the side plating. Most compartments forward of the boiler room were flooded. Minor damage occurred to auxiliary machinery. Fighting Efficiency - Seriously impaired. The forward 4 inch mounting was out of action due to upper deck damage and No.1 magazine was flooded. Gyro compass, A/S and W/T equipment were out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MATCHLESS 16th June, 1942 D.N.C.4B/R159	One <u>Contact</u> probably Type Q charge 80 lb. <u>Mine</u>	19 weeks	MATCHLESS, while entering Grand Harbour at 5 knots, was struck by a mine on the starboard side between the two forward mountings. A hole 10 ft. by 7 ft. was blown in the ship's side and the refrigerating machinery was destroyed. Most compartments in the vicinity were flooded. Fighting Efficiency - Seriously impaired. Maximum speed was 8 knots. The forward turrets were out of action due to loss of power and ammunition. The A/S was temporarily out of action.
WILD SWAN 17th June, 1942	Seven Near Miss size unknown delay action fuzed Bombs	Sunk	WILD SWAN, while homeward bound after convoy duty, was passing through a Spanish fishing fleet when she was attacked by enemy aircraft. Four near misses burst under water abreast the after boiler room, the force of the explosions breaking the ship's back, and bringing down the mast. The engine room and after boiler room were immediately flooded. The wheel was jammed hard to starboard causing the ship to ram a Spanish trawler. Forty minutes after the attack had commenced when the ship was listing 12 to port, a further three near misses fell close to the starboard quarter. WILD SWAN was now slowly breaking in two and was abandoned shortly afterwards, finally sinking.
ITHURIEL (ex Turkish) 17th June, 1942	One Near Miss size unknown delay action fuzed Bomb	l week	ITHURIEL, while en route from Malta to Gibraltar, was attacked by enemy aircraft and sustained a near miss starboard abreast the after boiler room. Local buckling of the side plating took place. An oil fuel leak occurred through the gland of the main thrust and plummer block. Fighting Efficiency - Not impaired.
BLANKNEY 17th June, 1942	Number unknown Near Miss size and type unknown Bombs	Uncertain	BLANKNEY while en route from Malta to Gibraltar was attacked by enemy aircraft. Damage was caused by near miss bombs but details are not available. Fighting Efficiency - Impaired.
BLENCATHRA 18th July, 1942	One Near Miss 500 lb. direct action fuzed Bomb	3 days	BLENCATHRA, while operating at 12 knots in the English Channel, was attacked by enemy aircraft and a near miss bomb fell 30 ft. off the starboard quarter. Severe shock caused distortion of keeps and holding down bolts of the starboard turbine. The main machinery was undamaged. Fighting Efficiency - Slightly impaired.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ITHURIEL 12th Aug., 1942	Rammed submarine	2 months	ITHURIEL, while operating in the Mediterranean, rammed an enemy submarine. The bow structure for 16 ft. aft and from keel to 4 ft. above the lower deck was set over 6 ft. to starboard. Complete flooding occurred in the fore peak and central store and minor flooding took place on the lower deck for 40 ft. Fighting Efficiency - Impaired. A reduction of speed was necessary due to the damaged bow.
WOLVERINE 12th Aug., 1942	Rammed	3½ months	WOLVERINE, while operating in the Mediterranean, rammed an enemy submarine. The foremost 16 ft. of the forecastle deck collapsed and the bow structure for 50 ft. at keel level was wrecked and forced aft. All bow compartments for 50 ft. were flooded. The S/A and A/S equipment was damaged. Fighting Efficiency - Seriously impaired. The speed was appreciably reduced due to the weakened condition of the bow structure.
FORESIGHT 12/13th Aug., 1942	(i) One Contact Torpedo dropped by aircraft (ii) Torpedo fired by our own forces	Sunk	FORESIGHT, while operating S.W. of Sicily, was hit by a torpedo dropped from an enemy plane. The torpedo struck the ship abreast the steering compartment. The ship's back was broken and the after end dropped 2 ft. Immediate flooding occurred below the lower deck of compartments abaft the engine room and slow flooding took place in the engine room. The main engines were undamaged and useable with great vibration at all speeds. The steering gear was wrecked. FORESIGHT was taken in tow but slowly settled aft until the upper deck was awash. The ship was abandoned and sunk by a torpedo fired by own forces about 15½ hours after being attacked.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
During a combine based batteries			the following HUNT class destroyers took part and were subjected to attacks by air, shore
BERKELEY 19th Aug., 1942	(i) Two Direct Hit Bombs (ii) Two Torpedoes fired by own forces	Sunk	BERKELEY sustained two direct hits on the starboard side of the upper deck just forward of the bridge. The ship's back was broken and the fore end was flooded. The vessel was abandoned with a heavy list to starboard and trim by the bow and was finally sunk by our own forces.
GARTH 19th Aug., 1942	(i) One Direct Hit 3.7 inch Shell (ii) One Direct Hit 2 pounder direct action fuzed Shell (iii) Near Miss Bombs	3 days	GARTH sustained two direct shell hits and several near misses. The direct hit by the 3.7 inch shell pierced the transmitting station and charthouse but did not explode. Several electric leads in the T.S. were severed and the echo sounding receiver broken. Type 286P and type 86 sets were out of action due to splinter damage. The direct hit by the 2 pounder occurred on the 2 pounder multiple pom-pom but the damage was not serious and the gun was able to fire. Further superficial damage was caused by splinters from "shorts". Near miss bombs which fell fractured several inlet and discharge pipes and caused minor shock damage. Fighting Efficiency - Slightly impaired.
BLEASDALE 19th Aug., 1942	Shell and/or	2 days	BLEASDALE and ALBRIGHTON both sustained minor damage.
ALBRIGHTON 19th Aug., 1942	Bomb	4 days	
CALPE 19th Aug., 1942	Near Miss Bomb	9 days	CALPE sustained minor damage from near miss bombs.
FERNIE 19th Aug., 1942	Direct Hit Shell	4 days	FERNIE was hit by a shell which put the director out of action.
BROCKLESBY 19th Aug., 1942	Several Direct Hit 3 inch and below Shells	6 weeks	BROCKLESBY came under heavy fire and was repeatedly hit. Both engines were put out of action and the ship grounded by the stern. Temporary repairs were completed in three minutes which enabled the ship to get clear under her own power. Fighting Efficiency - Impaired.

NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
One "Short" 4.5 inch probably 5 inch Shell	6 weeks	MARNE was in action with an enemy ship when a shell burst about 6 ft. above her quarter deck on the starboard side. Extensive but not serious splinter damage occurred, the quarter deck plating and cabins and compartments below being damaged. Minor damage occurred to electric circuits. The port .5 inch machine gun was out of action. Fighting Efficiency - Slightly impaired.
One Contact Torpedo fired by E-boat	Not Repaired	ERIDGE, while in the Mediterranean after completing a bombardment of the Daba area, and proceeding at 20, knots was attacked by an enemy motor torpedo boat. The torpedo struck on the starboard side between the engine and gearing rooms and caused a hole in the ship's side 20 ft. long extending from 3 ft. below upper deck to the keel. Flooding to the waterline occurred in the engine room, gearing room and after oil fuel tanks. The ship listed 18° to starboard. Complete failure of all electrical power took place. The starboard engine and auxiliaries were wrecked. Fighting Efficiency - Seriously impaired.
		REMARKS This incident emphasised the need for the port and starboard superheater auxiliary bulkhead valves and the saturated steam bulkhead valves to be operated from the upper deck as well as in the engine room.
One Near Miss 250 kgm delay action fuzed Bomb	10 days	HURSLEY, while returning to Alexandria after a bombardment of the Daba area, was attacked by enemy aircraft. A bomb exploded about 20 ft. to port abreast the after oil fuel tanks. Minor damage occurred to the hull abreast the explosion. Shock caused fracture of the feet of the lubricating oil cooler and failure of lighting in the engine and gearing rooms. The gyro compass was put out of action.
		Fighting Efficiency - Not impaired.
The same of the sa	One "Short" 4.5 inch probably 5 inch Shell One Contact Torpedo fired by E-boat One Near Miss 250 kgm delay action	One "Short" 4.5 inch probably 5 inch Shell One Contact Torpedo fired by E-boat One Near Miss 250 kgm delay action ACTION 6 weeks 6 weeks 10 days

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
SIKH 14th Sept., 1942	Number unknown Direct Hit Shells	Sunk	SIKH, while taking part in a raid on Tobruk, was fired on by shore batteries. A direct hit occurred in the gearing room and the forced lubricating pumps, after switchboard and fire and bilge pumps were put out of action. The starboard main engine seized but it was later possible to steam for ten minutes on the port engine. The steering gear was put out of action due to a direct hit on the steering compartment and the ship was out of control and circling with the rudder jammed. "B", "X" and "Y" magazines were flooded as a precautionary measure. "A" magazine could not be flooded due to a fierce cordite fire around the flooding position in the forward mess decks and damage caused to magazine flooding gear. The forecastle deck was red hot. The ship gradually listed to starboard and ZULU was ordered to take her in tow. SIKH was hit again 3 or 4 times and a direct hit on the quarter deck of ZULU parted the tow. SIKH was repeatedly hit and orders to abandon were given. The ship finally sunk aided by scuttling charges.
OTTAWA (H.M.C.S.) 14th Sept., 1942	Torpedo fired from submarine	Sunk	OTTAWA was torpedoed and sunk by an enemy submarine in the North Atlantic. No further information available.
ZULU 19th Sept., 1942	(i) Five or Six Direct Hit Shells (ii) One Direct Hit delay action fuzed Bomb	Sunk	ZULU, while taking part in the raid on Tobruk, was fired on by enemy shore batteries, and later, when returning from the raid, was attacked by enemy aircraft. ZULU attempted to take SIKH in tow and while doing so received 3 or 4 direct hits from shore batteries, one of which burst on the quarter deck and parted the tow. A further two hits were received and ZULU was ordered to withdraw from Tobruk. One leg of the tripod mast was shot away and the ship's side was holed in the torpedomen's mess, wardroom and the C.P.O's mess. The W/T sets were damaged. Minor controlled flooding took place in four compartments. Later when proceeding at 25 knots ZULU was attacked by enemy aircraft and sustained a direct hit on the side from a bomb which burst in the engine room. The after boiler room, engine room and gearing room were flooded. The ship was taken in tow by HURSLEY, but later as she began to sink rapidly, orders were given to abandon ship and ZULU finally listed to starboard and sank.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
SOMALI 20/24th Sept., 1942 D.N.C.4B/R180	One Contact Torpedo fired from submarine	Sunk	SOMALI while operating in the Greenland sea at 12 knots was struck by a torpedo on the port side abreast the engine room. The ship's side was holed and the upper deck torn and buckled in the vicinity of the explosion. The forward bulkhead of the after boiler room and the after bulkhead of the gearing room were buckled and were subsequently shored. The engine room, after boiler room and gearing room flooded immediately and minor flooding took place abaft the gearing room. SOMALI rapidly listed 15° to starboard and trimmed aft until the starboard side of the quarter deck was awash. The H.P. electrical supply failed but the L.P. supply continued to function. Torpedo tubes were blown overboard by the explosion. Topweight, anchors and cables were jettisoned and the ship was taken in tow by ASHANTI. 21st September, 1942. The list increased to 20 degrees and the ship yawed badly in tow. 22-23rd September, 1942. Pumping operations and further removal of topweight decreased the list to 10 degrees but the weather deteriorated. The weather further deteriorated to a full gale and snowstorm and SOMALI broke her back and sank.
VOYAGER (H.M.A.S.) 23rd Sept., 1942	Bombed whilst aground	Destroyed	VOYAGER grounded in Betano Bay, Timor Island, whilst landing reinforcements for Australian forces. Subsequently she was attacked by enemy aircraft and bombed whilst aground. VOYAGER was finally destroyed by our own forces when it was found impossible to effect salvage.
VETERAN 26th Sept., 1942	Torpedo fired from submarine	Sunk	VETERAN was torpedoed and sunk in the North Atlantic. No further information available.
BLEASDALE 10th Oct., 1942 D. N.C.4B/R169	One Contact probably type 'R' charge 90 lbs. Mine 13 fathoms	1 month	BLEASDALE was proceeding south east of Nab Tower at 18 knots when a mine exploded on the port bow at the waterline. The stem bar was fractured 11 ft. above the keel, and the structure forward of the foremost transverse bulkhead below the lower deck was crushed and turned to starboard. Compartments forward of the transverse bulkhead at the after end of the cable locker were flooded to the waterline. Fighting Efficiency - Slightly impaired. Maximum speed and manoeuvrability were reduced due to the fore end damage.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VISCOUNT 15th Oct., 1942	Rammed submarine	3 months including refit	VISCOUNT, while operating in the North Atlantic at 26 knots, rammed an enemy submarine on the port side about 20 ft. abaft the conning tower. The submarine was passing from starboard to port of VISCOUNT and moving at 15 knots. The bow lifted and crashed on the U-boat, pinning it for 15 seconds. The stem was buckled and turned to port from fore foot to within 4 ft. of the upper deck. Keel and lower strakes of hull plating were distorted and fractured from the bow to 35 ft. aft. Bulkheads 11 and 17, 18 ft. and 28 ft. from point of impact respectively, were damaged and strained. The lower deck at the fore end was distorted. Immediate flooding to the waterline occurred forward of the forward oil fuel tank. Fighting Efficiency - Impaired. Maximum speed was reduced to 14 knots and the S/A gear was out of action.
FAME 16th Oct., 1942	Rammed submarine	3½ weeks	FAME rammed an enemy submarine at 18 knots with a glancing blow. The submarine was on the surface and stopped. The hull plating at the waterline was holed 8 ft. by 6 inches in the engine room and 5 ft. by 2 inches in the after magazine. Minor controlled flooding took place in the engine room. Fighting Efficiency - Impaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
PANTHER 7th Nov., 1942 D.N.C.4B/R195	One Near Miss 500 kgm direct action fuzed Bomb	1 month	PANTHER, while proceeding off Algiers, was attacked by enemy aircraft and sustained a near miss bomb which exploded abreast the forward oil fuel tanks and magazines about 30 ft. from the port side. Serious hull damage occurred in the vicinity over a length of 50 ft. from 5 ft. below to 6 ft. above the waterline on the port side and minor damage occurred throughout the ship. Splinter damage was extensive. Fixed ammunition in No.1 magazine ignited, but no explosions occurred, and minor fires were started in the lower mess deck. One set of telemotor leads were cut. Compartments forward of the forward boiler room, with the exception of the lower naval store, fresh water tanks and fore peak were flooded to varying depths. Fighting Efficiency - Seriously impaired. Extensive flooding reduced manoeuvrability and maximum safe speed to 15 knots. The forward magazines and L.P. room were flooded and out of action. Endurance was reduced due to loss of oil fuel and diesel oil. REMARKS This incident emphasised the need for an extra portable pump i.e. making 2 per ship. This was being done vide A.F.O.1841/43, one to be diesel driven as supply permits.
MALCOLM 8th Nov., 1942 D.N.C.4B/R216	Five Direct Hit 75 mm. delay action fuzed Shells (French)	2½ months including refit	MALCOIM, while attacking the boom at Algiers during Expeditionary Force landing operation at 25 knots, was fired on by French shore batteries and received five direct hits on porside. Hit No.1 perforated forward superstructure and burst in a gravity tank at after end of forecastle. Hit No.2 perforated the sheer strake at the mid-length of forward boiler room and burst in No.7 peace tank. Hit No.3 struck the base of the after funnel and burst in the boiler uptake. Hit No.4 perforated the sheer strake at the fore end of the middle boiler room and exploded in No.5 peace tank. Hit No.5 perforated the sheer strake, and the forward bulkhead of the middle boiler room and came to rest in C.P.O's mess without exploding. Minor structural damage due to the hits was sustained. Splinter damage occurred to the exhaust steam line in the middle boiler room and the feed water system was contaminated. Minor controlled flooding occurred in the forward boiler room through splinter holes. Fighting Efficiency - Seriously impaired. Speed was temporarily reduced to 8 knots due to three boilers being out of action and feed water contaminated. Type 271 radar, and bridge control to depth charge release gear out of action.

SHIP	NATURE OF	TIME OUT OF	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
DATE OF INCIDENT	ATTACK	ACTION	
COWDRAY 8th Nov., 1942	One Direct Hit 500 kgm delay action fuzed Bomb	22½ months	COWDRAY was attacked by enemy aircraft while on A/S patrol east of Cape Matifon, Algeria, at 25 knots. A bomb struck the starboard edge of forecastle abreast the fore end of bridge, perforated the upper and lower decks and the crown of the fresh water tank, and passed out through the keel to explode under the forward boiler room. The hull plating under the forward boiler room was fractured between the bilge keels, port and starboard, and blown upwards 12 ft. The port and starboard plating below the lower deck in way of the forward boiler room and the forward oil fuel tanks was seriously buckled and fractured. The forward bulkhead of the forward boiler room was bulged aft and fractured at the base. The forward bulkhead of the forward boiler room was bulged aft forward and torn from the boundary angles. The forecastle deck was corrugated in way of the bridge and minor damage occurred to the upper deck, while the lower deck was fractured and bulged over the oil fuel tanks. Whipping caused buckling of the bulkhead between after the oil fuel tanks and of the hull plating in the vicinity. Immediate flooding of forward boiler room, stabilizer compartment, forward oil fuel, diesel and fresh water tanks, lower power and gyro compass rooms and ward room flat occurred. Slow flooding of after boiler room, No.1 magazine, and lower mess deck took place. The forward boiler was seriously damaged and the auxiliary machinery wrecked or seriously damaged. Minor shock damage occurred to main engines. Immediate failure of electrical power took place. Low power generators, gyro compass and A/S equipment were destroyed. The low power and forward high power switchboards, radar alternators and echo-sounding equipment were damaged. Effect on fighting efficiency The ship was immobilised and taken in tow. Both boiler rooms, forward oil fuel, diesel and fresh water tanks were flooded. Low power generators, gyro compass and A/S equipment were out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BOADICEA 8th Nov., 1942 D.N.C.4B/R188	One <u>Direct</u> <u>Hit 5.1 inch</u> delay action fuzed <u>Shell</u>	1 month	BOADICEA, while in action with a French destroyer off Oran, was hit by a shell. The shell struck the ship's starboard side, perforated the lower deck, and the middle line bulkhead and burst in the forward 4.7 inch shell room. The ship's side, lower deck, and middle line bulkhead in shell room were holed and considerable damage was caused by splinters to structure in the vicinity of burst. The cold room, including evaporator pipes and fittings of the refrigerator plant, was wrecked. A number of ammunition boxes were ignited by splinters but did not explode. Minor flooding occurred in the 4.7 inch shell room.
			Fighting Efficiency - Slightly impaired. Forward 4.7 inch shell room was temporarily out of action. Watertight subdivision impaired due to damage to forward bulkhead of shell room.
BROKE 8/9th Nov.,1942	Number unknown Direct Hit Shells	Sunk	BROKE rammed the boom at Algiers, and came under heavy fire from shore batteries. The ship was repeatedly hit on the hull and superstructure and was seriously damaged. The engine room was holed at the waterline and the after magazine, wardroom flat, forward mess decks, and central store were flooded. Next day BROKE was taken in tow from Algiers, but foundered whilst on passage to Gibraltar.
MARTIN 10th Nov., 1942	Three Contact Torpedoes fired from submarine	Sunk	MARTIN operating in the Mediterranean at 16 knots was torpedoed by an enemy submarine. lst Torpedo struck just abaft the after oil fuel tanks and a serious fire started immediately in the wardroom and after cabin flat. 2nd Torpedo struck in the vicinity of the asdic compartment. The forecastle deck was wrecked and "A" mounting blown off. Extensive fires were started in the remaining mes decks, and flames were observed coming up "B" ammunition hoists. 3rd Torpedo struck in the vicinity of the gearing room. Immediate flooding of the engine room and gearing room took place and all lighting failed. Approximately 30 seconds elapsed between the 1st and 3rd torpedoes which all struck on the starboard side. Shortly after the 3rd explosion the ship listed heavily to starboard and settled by the bows. It was estimated that the bridge was underwater within 2 minutes of the 1st explosion. The ship settled with the stern floating for 20 minutes before sinking and as she sank at least one depth charge exploded.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MARNE 12th Nov., 1942 D.N.C.4B/R232	One Contact Torpedo fired from submarine	15 months	MARNE, while standing by HECLA in the Atlantic off Gibraltar, and proceeding slow ahead was torpedoed. The torpedo struck the port side abreast the "A" bracket. The stern structure abaft "Y" magazine was blown away or destroyed for 37 ft., the upper deck being blown upwards and the ship's side blown outboard to abreast the fore end of the magazine. The after end of the superstructure was crushed against "X" gun. Immediate flooding of "X" shell room and minor slow flooding of the 4 inch HA/LA magazine occurred. Minor controlled flooding took place in the plummer block and gland compartments. Heavy seas caused minor flooding on the lower deck. A small fire occurred in the vicinity of "X" magazine. Both "A" brackets were torn from the shell plating and the shafts were bent down to 12 feet below the keel. The rudder and steering gear were lost. "A" magazine was flooded as a precautionary measure against a further torpedo attack.
			Fighting Efficiency - Severely impaired. The ship was immobilised. 'X' gun was out of action and its magazine group and 'A' magazine were flooded.
WILTON 12th Nov., 1942	One Direct Hit (Unexploded) Bomb	Nil	WILTON when attacked by enemy aircraft sustained a direct hit aft on the starboard side. The bomb passed through the gunner's store and out through the ship's side about 3 ft. above the lower deck level, without exploding. Minor flooding occurred in the canteen flat to 6 inches in depth due to the bomb exit hole being under water when the ship took avoiding action.
			Fighting Efficiency - Not impaired.
HAMBLEDON 12th Nov., 1942	One Torpedo fired from submarine	Nil	HAMBLEDON was operating at Fedala during the North African landings when submarines attacked the harbour and she sustained minor damage from the explosion of a torpedo which sank a nearby transport. Fighting Efficiency - Not impaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BRAMHAM 20th Nov., 1942 D.N.C.4B/R218	One Direct Hit 250 kgm delay action fuzed Bomb	7½ months	BRAMHAM, while proceeding in the Mediterranean at 22 knots, was attacked by enemy aircraft and sustained a direct hit on the upper deck, abreast the after 4 inch mounting on the port side. The bomb perforated the lower deck, passed through a fully stowed bottle rack in the after (No.2) magazine, perforated the ship's bottom and exploded deep in the sea off the starboard quarter. Minor structural damage occurred in the path of bomb and a hole 3½ ft. by 3½ ft. was made in the hull plating. Immediate flooding of both after magazines, and lower deck over, to waterline occurred. No.2 magazine was fully stowed and five rounds of 4 inch ammunition ignited, but the inrush of sea water quenched the fire. The magazine vented through the supply hatch and bomb entrance hole, and the lower deck was bulged upwards a maximum of 17 inches. Twenty rounds of ammunition were damaged. Fighting Efficiency - Seriously impaired. All ammunition was lost to the after guns and No.3 gun was reduced to quarters firing. Speed was reduced to 11 knots to avoid aggravating the hull damage.
ITHURIEL 28th Nov., 1942 D.N.C.4B/R213	Two Near Miss 500 kgm delay action fuzed Bombs	Not repaired	ITHURIEL, while in Bone Harbour, was attacked during an air raid. Two near misses exploded under the ship, one abreast the after magazines and the other abreast the engine room. Serious damage occurred in way of bursts which caused structural weakness at the fore end of the engine room and in way of the magazines. The shell plating was split and torn over this area. Slow flooding of the engine room and the after magazine group took place which spread to the after oil fuel tanks and to above the lower deck. Pumps were unable to cope with the flooding which finally extended from the fore bulkhead of the engine room to the steering compartment. The ship listed heavily to starboard and was beached. All lighting and power was immediately lost. Serious damage occurred to engine room auxiliaries, the port and starboard main circulators were seized and the starboard main inlet was strained and leaking. Fighting Efficiency - Severely impaired. The ship was immobilised and beached. Main armament was in local control only and the after magazine group was flooded.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
QUENTIN 2nd Dec., 1942	Two Contact Torpedoes dropped by aircraft	Sunk	QUENTIN, while operating in the Mediterranean, was attacked by enemy torpedo bombers and was hit by two torpedoes. 1st Torpedo struck the starboard side abreast the engine room about 8 ft, forward of the after bulkhead. Immediate flooding of the after boiler room, engine and gearing rooms, shaft tubes and gland spaces took place. Damage sustained put the pumping system out of action. The forward torpedo tubes were blown overboard and the starboard oerlikon platform collapsed. 2nd Torpedo struck the port side amidships about half an hour after the ship was abandoned. The ship appeared to break in two and there was a violent explosion. QUENTIN sank by the stern about 15 seconds after the 2nd hit.
PENYLAN 3rd Dec., 1942	One Torpedo fired from E-Boat	Sunk	PENYLAN while operating in the English Channel, was sunk by a torpedo fired from an E-boat. No further information available.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
PORCUPINE 9th Dec., 1942 D.N.C.4B/R224	One Contact Torpedo fired from submarine	Not repaired	PORCUPINE was on passage from Gibraltar to Algiers at 14 knots when a torpedo struck the port side about bilge keel level just forward of the after bulkhead of the engine room. The side plating was holed 31 ft. by 14 ft. deep and distorted over an area of 1,000 sq. ft. From mid length of engine room to the after end of the gearing room the side framing and longitudinals were destroyed or seriously damaged. The bulkhead between the engine room and the gearing room was destroyed and the after bulkhead of the gearing room seriously damaged. Over the engine and gearing rooms the upper deck was bulged upwards and cracked. The stern structure abaft the after bulkhead of the gearing room was out of alignment. Immediate flooding of the engine room, gearing room, two after oil fuel tanks, plummer block and gland compartments took place. Slow flooding occurred in the wardroom and after cabin flat and minor flooding took place in the after boiler room. The ship took an immediate list of 3 to 5 degrees to starboard which increased finally to 28 degrees. Machinery and electrical equipment in the engine and gearing rooms was destroyed or seriously damaged and all electrical power failed. The foremost torpedo mounting was blown overboard, and the after mounting jammed. An oil fuel fire which started in the engine room was quickly extinguished by the flooding, and by escaping steam. Fighting Efficiency - Severely impaired. The ship was immobilised and taken in tow, the engine room and gearing room being wrecked. The after oerlikons and torpedo tubes were out of action and the after guns were in local control only.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WHITSHED 11th Dec., 1942 D.N.C.4B/R243	(i) One Direct Hit 4 inch delay action fuzed Shell (ii) Several Direct Hit direct action fuzed Oerlikon Shells	6 weeks	WHITSHED, while attacking an enemy convoy off Dieppe at 28 knots, was hit by enemy shell fire. A direct hit by a 4 inch shell was sustained at the fore end of the after boiler room, the shell exploding in the peace tank. A hole 4 inches in diameter was made in the ship's side and the peace tank was wrecked. The forward bulkhead of the boiler roo in way of the peace tank was seriously damaged and pierced by splinters. Minor controlled flooding took place in the after boiler room. No.2 boiler was damaged and shut down. Both dynamos were off the board due to shock, but the secondary lighting functioned correctly. The gyro compass failed for a time due to loss of power. A number of hits were received by cerlikon shells which burst on impact, but no damage was caused. Fighting Efficiency - Impaired. The after boiler room was out of action and maximum speed was reduced to 22 knots.
BROCKLESBY 11th Dec., 1942	Number unknown "Short" size and type unknown Shells	5 days	BROCKLESBY while attacking an enemy convoy off Dieppe at 28 knots suffered minor superficial and electrical damage caused by splinters from "shorts". Fighting Efficiency - Slightly impaired. The T.S. was out of action.
WORCESTER 11th Dec., 1942	Number unknown "Short" size and type unknown Shells	4 days	WORCESTER, while attacking an enemy convoy off Dieppe at 28 knots, suffered minor damage to the hull structure and director caused by splinters from "shorts". Fighting Efficiency - Unimpaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
VESPER 11th Dec., 1942 D.N.C.4B/R243	(i) Seven Direct Hit Oerlikon or Pom-pom direct action fuzed Shells (ii) One Direct Hit 88 mm. direct action fuzed Shell		VESPER while attacking an enemy convoy off Dieppe at 28 knots was hit by enemy shell fire. Three direct hits occurred between the forecastle and upper decks in way of the crew's space, starboard side. Minor structural damage was sustained. Direct hit was sustained on the starboard side of the type 286 radar office. The indicator and receiver sets and the aerial leads of type 252 radar were damaged by splinters. Direct hit occurred at the after end of the W/T office. Aerial leads to type 252 and leads to the motor alternator of type 286 were cut by splinters. Direct hit occurred on the perspex window on the aft side of type 271 radar. The aerial reflector and type 271 was damaged. Direct hit occurred on the toughened glass windscreen on the port side of the bridge. Direct hit with an 88 mm. shell occurred on the starboard side of the W/T office. The main transmitter was damaged by splinters. Fighting Efficiency - Slightly impaired. The W/T and type 286 radar was out of action.
ALBRIGHTON 11th Dec., 1942	Number unknown "Short" size and type unknown Shells	Nil	ALBRIGHTON, while attacking an enemy convoy off Dieppe at 28 knots, suffered superficial damage to the hull structure caused by splinters from "shorts". Fighting Efficiency - Not impaired.
BLEAN 11th Dec., 1942	Two Contact Torpedoes fired from submarine	Sunk	BLEAN, while escorting a convoy in the Mediterranean 60 miles west of Oran, was torpedoed by an enemy submarine. 1st Torpedo struck the ship right aft. 2nd Torpedo struck forward about 20 seconds later. Both hits were to starboard. The ship was enveloped in a pall of smoke and was later seen to roll over to port and sink by the stern. The bows rose vertically and about 40 ft. remained above the water for about a minute. The ship sank in about 4 minutes from the time of the 1st torpedo hit.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
FIREDRAKE 16/17th Dec., 1942	One Contact Torpedo fired from submarine	Sunk	FIREDRAKE, while escorting a convoy off the north coast of Ireland, was torpedoed and sunk by an enemy submarine. A torpedo struck the starboard side, probably abreast the forward boiler room. The forward bulkhead of the after boiler room (No.3) remained intact. FIREDRAKE listed heavily to starboard, righted herself and then broke in two about one minute after the explosion. The bows floated away and capsized to starboard with 20 ft. of the fore end remaining out of water, finally sinking 30 minutes later. The stern remained afloat on an even keel with the after bulkhead of the after boiler room pounded by heavy seas. Depth charges aft and torpedoes were jettisoned. At 0045/17 the weather deteriorated and the bulkhead collapsed. FIREDRAKE was abandoned and settled rapidly.
PARTRIDGE 18th Dec., 1942	One Contact Torpedo fired from submarine	Sunk	PARTRIDGE was carrying out an anti-submarine sweep in the Western Mediterranean at 16 knots when she was struck by a torpedo in the vicinity of the after end of the gearing room. Immediate flooding of the engine room, gearing room and proably the ward room flat occurred. The stern structure abaft No.3 gun listed to port and partially broke away from the forward structure, while the fore end listed to starboard and settled down aft. Both ends of the ship rapidly sank.
PETARD 19th Dec., 1942	Number unknown Near Miss size and type unknown Bombs	l week	PETARD, while at Benghazi during an air raid on the harbour, sustained minor damage from near misses. Fighting Efficiency - Impaired.
VANESSA 26th Dec., 1942	Rammed submarine	6 days	VANESSA, while operating in the North Atlantic at 23 knots, rammed an enemy submarine. When attacked the submarine was in the act of surfacing, with conning tower in view, and moving at approximately 18 knots. VANESSA rammed the starboard side, between the conning tower and stern, with a glancing blow and sustained minor damage to the fore foot. Fighting Efficiency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HESPERUS 26th Dec., 1942	Rammed submarine	3 months, including refit	HESPERUS, while operating in the North Atlantic at 10 knots, sighted an enemy submarine on the surface, proceeding at approximately 18 knots. HESPERUS increased to full speed and rammed the submarine at the base of the conning tower on the starboard side. The bow from the fore foot to upper deck was twisted and fractured, the lower portion of the bows being turned 90 degrees to starboard. The flat and vertical keels and garboard strake were distorted for 41 ft. from the bow. The internal structure below the lower deck was badly damaged. Immediate flooding occurred below the lower deck forward of the forward magazines. Minor electrical damage was sustained by circuits in flooded compartments. The asdic dome and S/A oscillators were carried away. Fighting Efficiency - Impaired. Maximum speed was reduced due to flooding. The asdic and S/A gear were out of action.
OBEDIENT 31st Dec., 1942	Salvo "Short" 8" direct action fuzed Shell	Nil	OBEDIENT while in action with a German cruiser of the "Hipper" Class, in the Barents Sea, was straddled by one salvo which shot away the main W/T aerials. Fighting Efficiency - Slightly impaired. The W/T was out of action for 1½ hours.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ONSLOW 31st Dec., 1942 D.N.C.4B/R223	Three Direct Hit One "Short" direct action fuzed Shells	23½ months including refit	ONSLOW, while in the Barents Sea engaged in action a German cruiser of the "Hipper" class and received damage from direct hits and "shorts" from shells. 1st Hit occurred on top of the funnel, which was wrecked, and caused extensive splinter damage. Types 285 and 286 radar and starboard cerlikon were damaged, the main aerials were severed, and the two forward boilers indented. 2nd Hit was sustained on the sheer strake between 'A' and 'B' guns, on the port side making a hole 6 ft. by 5 ft. Extensive splinter damage occurred to important electrical cables and the forward oil fuel filling line and 'A' gun barrel were penetrated. Serious fires were started and the forward magazines were flooded as a precautionary measure. 2rd Hit occurred on the port side edge of 'B' gun deck. A hole 6 ft. by 4 ft. was made in the superstructure and 4 ft. square in 'B' gun deck. Extensive splinter damage occurred to fire control and important electrical cables. 'B' gun was wrecked. The Short occurred at lower deck level between 'A' and 'B' guns causing minor damage to the ship's side on the port side. The ship listed 10 degrees to port due to the flooder magazines but this was corrected by counterflooding. Fighting Efficiency - Seriously impaired. 'A' and 'B' guns, types 285 and 286 radar and the starboard forward oerlikon were out of action. Ammunition to the forward guns was lost.
			REMARKS This incident emphasised the need for each destroyer to have increased supply of 4 in number 40 ft. No.3 and 4 in number 20 ft. No.2 hoses. Portable self-contained battery operated floodlights, pattern 17081 to be supplied to all ships in the near future. C.A.F.O.1984/43 issued to cover the fitting of an isolating valve to the oil fuel filling line where it joins the vertical filling line. C.A.F.O.1273/43 authorised to supply to commissioned and new construction destroyers of a further 3-6 way emergency switchboards. A.F.O.4307/43 authorised lagging of the deck over the main after switchboard in this class of ship.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ACHATES 31st Dec., 1942 D.N.C.4B/R214	Two Direct Hit Two "Short" direct action fuzed Shells	Sunk	ACHATES, while in the Barents Sea, in action with a German cruiser of "Hipper" class was hit by shell fire. A "Short" abreast the forward magazines, port side, caused flooding through splinter holes which extended to the forward crew space. Type 271 radar was put out of action, and speed was reduced to 15 knots. Direct Hit on the fore end of the bridge, wrecked the bridge, put 'B' gun out of action and caused a minor cordite fire on 'B' gun deck. Direct Hit struck abreast 'B' gun in the seamen's washplace on the port side. The lower deck was now flooded to the forward boiler room and a temporary failure of lighting and power occurred forward. The T.S. and L.P. room were out of action. A "Short" abreast the after boiler room caused it to flood and minor controlled flooding took place in the forward boiler room. ACHATES by this time had listed 15 degrees to port and was well down by the bow. The maximum speed was 12 knots. The list increased until the upper deck was awash and the ship finally rolled to port and sank about 14 hours after the commencement of the action. REMARKS This incident emphasised the need for the design of magazine hatches to be reviewed.
OBDURATE 31st Dec., 1942	One Short Shell	5 weeks including partial refit	OBDURATE, while in the Barents Sea, in action with a German cruiser of "Hipper" class received damage from a "short" which exploded off the starboard side abreast the bridge. Splinter damage occurred to the structure in the vicinity of the bridge, charthouse, signal deck, director, 'A' gun shield, type 286 radar office, funnel and searchlights. Splinters cut and damaged the director elevating gear, cables of director fire control circuits, director firing circuits, VC/VF transmitter and type 286 radar. Other minor damage occurred to electrical equipment. Fighting Efficiency - Impaired. The director elevating gear, director fire control circuits, director firing circuits, VC/VF transmitter and type 286 radar were out of action.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
AVONVALE 29th Jan., 1943 D.N.C.4B/R250	One Contact Torpedo dropped by aircraft	15 months	AVONVALE, while escorting a convoy in the Mediterranean at 18 knots, was attacked by a torpedo bomber. The torpedo struck the starboard side abreast the forward magazine, about 5 ft. below the waterline. The fore end structure forward of and including the forward magazine was blown away. Structure abaft this to the fore bulkhead of the forward boiler room was severely damaged and minor damage occurred to the bridge structure. Immediate flooding to the waterline of compartments forward of the forward boiler room occurred. All steam, power and lighting was temporarily lost due to the contamination of the forward oil fuel tanks and all electrical equipment forward of the low power room was wrecked. All communications were temporarily out of action due to shock.
			Fighting Efficiency - Severely impaired. The ship was temporarily immobilised and taken in tow. The forward 4 inch gun and ammunition was lost and the remaining guns were in local control only. Both radar sets and the forward H.P. and L.P. switchboards were out of action. A/S gear, gyro compass and S/A gear was destroyed.
REDOUBT 23rd Feb., 1943	Rammed submarine	l week approximately	REDOUBT, while ramming an enemy submarine, sustained slight damage. The stem casting was fractured and the forward plating and framing buckled. The asdic dome and chernikeef log were bent aft.
			Fighting Efficiency - Slightly impaired.
ASSINIBOINE (H.M.C.S.) 2nd March, 1943	Rammed submarine	4½ months, including depth charge damage and repair of bent shaft found when	ASSINIBOINE, while operating in the North Atlantic at 15 knots, rammed an enemy submarine. She struck with a glancing blow and the submarine passed down the starboard side bumping the ship abreast the forward boiler room. The starboard side abreast the boiler room was stove in and the starboard propeller damaged. Fighting Efficiency - Seriously impaired.
	-	on trials	REMARKS ASSINBOINE was also damaged by her own depth charges. For brief account of damage, see Appendix 1, Page 470.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HARVESTER 11th March, 1943	(i) Rammed submarine (ii) Two Contact Torpedoes fired from submarine	Sunk	HARVESTER, while escorting a convoy in the North Atlantic at 26 knots, rammed a U-boat just abaft the conning tower. After ramming, the engines were stopped, and the submarin passed beneath the ship and came to rest under the stern for about 15 minutes. The submarine was finally cleared and about 5 minutes later an underwater explosion occurred in the vicinity of HARVESTER's stern. The fore end structure was damaged and the fore peak, S/A compartment, F.W. tank, A/S compartment, lower central store and refrigerating compartment were flooded. Minor damage occurred aft, the magazine was flooded and minor flooding took place in the wardroom flat. The asdic and port engine were out of action and the starboard engine was stiff to turn. Later the starboard engine commenced to race probably due to a broken shaft or missing propeller and the ship was immobilised. About 10 hours after the ramming, a torpedo struck the port side and the ship was abandoned with a heavy list to starboard. 5 minutes later a 2nd torpedo struck in the vicinity of the forward magazine, which was reported to have exploded, and the ship broke in two and sank rapidly. REMARKS The considerations affecting the ramming of U-boats have been promulgated in C.A.F.O.2421/43.
LIGHTNING 12th March, 1943	Two Contact Torpedoes fired from E-boat	Sunk	LIGHTNING, while operating in the vicinity of Galita Island in the Mediterranean at 28 knots, was torpedo by an E-boat. The first torpedo hit the ship right forward. Engines were ordered to stop to prevent further damage to the structure forward. After the ship had lost steerage way a second torpedo struck approximately abreast the fore end of the engine room. The ship broke in two and rapidly settled in the water. LIGHTNING was abandoned, and within a short time the bow and stern became vertical and sank rapidly.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
DERWENT 19th March, 1943 D.N.C. 4B/R281	One Contact Torpedo dropped by aircraft	Indeterminate ship not repaired	DERWENT, while at anchor in Tripoli harbour, was struck by a torpedo on the port side at the fore end of the after boiler room at about waterline level. A hole about 28 ft. fore and aft by 16 ft. was blown in the port side. The bulkhead between boiler rooms was shattered while the forward bulkhead of No.1 and the after bulkhead of No.2 boiler rooms were buckled and distorted. The forecastle deck was distorted and the upper deck lifted and torn on the port side over both boiler rooms. Immediate flooding of both boiler rooms and slow flooding of the engine room, low power room and wardroom occurred with minor flooding in the gearing room. The ship listed to port, righted herself and then listed 7 degrees to starboard. Both boiler rooms were severely damaged and the boilers wrecked. All steam and electrical power was lost immediately. Communications between the bridge, torpedo tubes and depth charge positions were destroyed. The ship was beached. Burning oil drums and petrol which were floating down on DERWENT from a nearby damaged vessel were diverted by hose jet from the portable pump using suction hose over the ship's side. Fighting Efficiency - Seriously impaired. The ship was immobilised and beached due to extensive flooding. Both boiler rooms and engine room were flooded and out of action. All armament was in local control only due to loss of power. REMARKS A.F.O.4995/43 approved the fitting of stand pipes for sea suction to portable diesel pumps.
BEVERLEY (ex U.S.A.) 11th April,1943	Torpedo fired by submarine	Sunk	BEVERLEY was torpedoed and sunk in the North Atlantic. No further details available.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
PAKENHAM 16th April,1943 D.N.C.4B/R248	(i) Five possibly six Direct Hit 4.7 inch approximately delay action fuzed Shells (ii) Contact Torpedoes fired by own forces	Sunk	PAKENHAM, while off Pantelleria Island in company with PALADIN at 20 knots, engaged two enemy destroyers, and was hit by shell fire. Hit No.1 occurred on a depth charge aft, the shell finally exploding in the fore end of the after superstructure. Surrounding structure was seriously damaged by blast and splinters, and the depth charge was shattered. The after torpedo tubes were damaged by splinters. A minor fire was started. Hit No.2 struck the sheer strake just abaft the after bulkhead of the gearing room and the shell burst in a port side cabin. The surrounding cabin structure was demolished. An extensive fire started in the cabin flat and the after magazine was flooded as a precautionary measure. The 2nd W/T office was put out of action. Hit No.3 occurred at about waterline level and burst in the engine room. There was possibly a second hit which also burst in the engine room. Extensive splinter damage occurred to pipe lines and the main steam pipes were cut. The engine room flooded to the waterline and the ship listed 10 to 15 degrees to port. Due to escaping steam the engine and gearing rooms and main switchboard were untenable. All lighting and power was temporarily lost. Hits No 4 and 5 struck on the pom-pom and searchlight. The ship finally stopped due to loss of feed water and was taken in tow by PALADIN. Later attacks were made on the ship by enemy aircraft but no damage was sustained. Finally, because of the close proximity of enemy air bases and slow speed of tow, PAKENHAM was sunk by torpedoes from PALADIN.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
BADSWORTH 22nd April,1943 D.N.C.4B/R256	One Non- Contact Mine 46 fathoms	19 months	BADSWORTH, while entering Bone harbour at 14 knots, sustained an explosion off the starboard quarter. Severe buckling girthed the ship from the keel to upper deck and acros the lower and upper decks in the vicinity of the after magazine (No.2). Abaft this the hull plating starboard from keel to sheer strake was severely corrugated and split. Minor damage occurred on the port side. Bulkheads and upper and lower deck structure over this area were severely buckled and split in many places. The rudder was bent slightly to starboard and the starboard shaft bracket was lifted 12 inches. The stern dropped about 4 degrees. Immediate flooding occurred, to the waterline, of the after end abaft the gearing room with the exception of two cil fuel tanks, crew space, C.P.O's mess, after magazine (No.2), gearing room and plummer block and gland spaces, all of which flooded slowly. Both port and starboard tail shafts were bent, the starboard one badly, and the starboard main engine jammed, while the port engine was stiff to turn. Minor damage due to shock occurred to castings. Electrical equipment abaft 'X' gun was seriously damaged by shock or flooding. Fighting Efficiency - Seriously impaired. The ship was immobilised and beached. 'Y' gun, steering gear, gyro compass, A.R.L. plot, depth charge rails and equipment, after magazines and oil fuel tanks were put out of action by damage or flooding.
GOATHLAND 28th April,1943	"Shorts" Shell	1 day	GOATHLAND attacked an enemy convoy during an anti-shipping sweep off the French coast. Superficial damage to structure was caused by shell splinters. Fighting Efficiency - Not impaired.
ALBRIGHTON 28th April,1943	Two Direct Hit Several "Short" Shells	10 days	ALBRIGHTON attacked an enemy convoy during an anti-shipping sweep off the French coast. A direct hit from a shell was sustained on 'B' gun mounting and on the port side of the forecastle. The steering motors were put out of action due to splinter damage to electric leads. Other minor superficial damage was done to structure by shell splinters. Fighting Efficiency - Impaired. The steering gear was temporarily put out of action. The steering gear was temporarily put out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LAFOREY 29th April,1943	Rammed E-boat	Nil	LAFOREY, in company with WHEATLAND, encountered an enemy force of six E-boats and one U-boat in the Mediterranean, south of Marittimo. LAFOREY rammed and cut in two one E-boat which buckled the stem and flooded the fore peak and cable locker. Fighting Efficiency - Impaired. Maximum speed reduced to 18 knots.
ORIBI 6th May, 1943	Rammed submarine	7 weeks repaired in U.S.A.	ORIBI, while in the North Atlantic at 22 knots, rammed an enemy submarine which was passing from starboard to port, the point of ramming being just abaft the conning tower. The stem bar was missing for 12 ft. 6 ins. above keel and the shell plating and framing over this depth and for 15 ft. aft was crumpled and forced to port. Bulkhead 9 and the lower deck in the vicinity were severely buckled and split. Immediate flooding of the fore-peak, lower central store and cable locker took place. Lighting circuits in the forward compartments were damaged. The S/A gear was wrecked. Fighting Efficiency - Impaired. Maximum speed was reduced to 12 knots. The S/A gear was out of action.
LAFOREY 9th May, 1943	One <u>Direct</u> <u>Hit</u> 88 mm. delay action fuzed <u>Shell</u>	Nil	LAFOREY while proceeding at 25 knots engaged enemy shore batteries on Cape Bon peninsula A direct hit was sustained in the engine room, 6 ft. from the forward bulkhead and 1 ft. above the waterline. It made a hole in the side plating 8 inches diameter and detonated just inboard of the hull plating. Splinter damage occurred in the vicinity of the burst and the main feed tank was holed. Minor controlled flooding took place in the engine room through the shell hole. Numerous steam pipes were cut by shell splinters, and the engine room filled with steam, but the ship was able to proceed on one engine. Gun elevation, training and director firing circuits and communications to 'X' gun were cut by splinters. Communications from the bridge to the engine room, pom-pom and quarter deck were temporarily broken. Fighting Efficiency - Impaired. Speed was temporarily reduced to 15 knots but was later increased to 20 knots after repairs. 'X' gun was in local control only.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ILEX 14th May, 1943	One Near Miss direct action fuzed Bomb	2 days	ILEX, while at anchor in the outer harbour at Bone, sustained a near miss bomb about 30 yards off the port quarter. The ship's port side above the waterline was holed by splinters from the after end of the engine room to the stern. Splinters caused a minor fire in the wardroom flat, severed two multicore cables, and pierced a ready use locker on the upper deck igniting several cartridges which burnt out. The searchlight was damaged by splinters. The steering gear was put slightly out of alignment due to shock. Fighting Efficiency - Slightly impaired.
LAMERTON 15th May, 1943	Shell	Nil	LAMERTON, while in action with E-boats in the Mediterranean, sustained superficial damage to the structure. Fighting Efficiency - Not impaired.
WENSLEYDALE 28/29th May, 1943	Shell	Nil	WENSLEYDALE, while in action with E-boats in the English Channel, sustained damage to the torpedo tubes through shell fire. Fighting Efficiency - Impaired.
PETARD 16th June, 1943	One Near Miss Bomb	Nil	PETARD, while operating south of Pantelleria Island, sustained minor damage from a near miss bomb. Fighting Efficiency - Not impaired.
PETARD 18th June, 1943	Three Near Miss delay action fuzed Bombs	2 days	PETARD, while alongside the mole during an air raid on Bizerta, sustained one near miss off the port quarter, which struck and exploded against the mole and two other near misses one to port and one to starboard of the bridge. Minor splinter damage occurred to No. 8 oil fuel tank, the after torpedo tubes and the quarter deck in the vicinity. Structure near the forward oil fuel tanks and magazines was strained and leaking and minor damage occurred to fittings in these compartments. The gearing of the flood valve to the pom-pom magazine was jammed. The standard and gyro compasses, echo sounding gear and A.R.L. plot were damaged by shock and the support to the Mark V rangefinder was broken. Other minor damage occurred to electrical and torpedo equipment. Fighting Efficiency - Impaired.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
GLAISDALE 10th July,1943	Shell .	6 days	GLAISDALE engaged in action an enemy force of torpedo boats and 'R' boats in the English Channel. Superficial damage only was sustained. Fighting Efficiency - Not impaired.
WENSLEYDALE 10th July,1943	Shell	17 days	WENSLEYDALE engaged in action an enemy force of torpedo boats and R boats in the English Channel. The ship sustained superficial damage only. Fighting Efficiency - Not impaired.
MELBREAK 10th July,1943	One Direct Hit Shell	8 days	MELBREAK during an action with an enemy force of torpedo boats and 'R' boats in the English Channel sustained a direct hit on the bridge which caused considerable damage to the structure. Fighting Efficiency - Impaired.
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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ESKINO 12th July, 1943 D.N.C.4B/R264	One Direct Hit two Near Miss 250 kgm delay action fuzed Bombs	81 months	ESKIMO, while operating in the Mediterranean at 20 knots, was attacked by enemy aircraft. The ship sustained a direct hit in way of the after oil fuel tanks, one near miss aft and one near miss abreast the bridge on the starboard side. The direct hit struck the upper deck 2½ ft. from the ship's side port, perforated the lower deck and burst in the after oil fuel tank (No.6). The lower deck over and bulkheads between and abaft Nos.5 and 6 oil fuel tanks were wrecked. A hole 12 ft. by 10 ft. was made in the after bulkhead of the gearing room. The ship's side structure abreast the after oil fuel tanks was buckled and perforated and the cabin flat above wrecked. The plummer block compartments were damaged. Immediate flooding of the after oil fuel tanks, plummer block compartments to the waterline in the gearing room and on the lower deck above Nos.5 and 6 oil fuel tanks including the warhead magazine, occurred. Minor flooding took place abaft this on the lower deck. An oil fuel fire started in the vicinity of Nos.5 and 6 oil fuel tanks. One forced lubrication pump and one fire and bilge pump in the gearing room were wrecked. The H.P. hydraulic supply to 'Y' mounting and the torpedo tubes was damaged. Cables to the fire control of 'X' and 'Y' mountings, port dynamo, port steering motor and other circuits were damaged. Fighting Efficiency - Seriously impaired. The ship was immobilised due to failure of the forced lubrication pumps. Oil fuel tanks and 50% of electrical equipment aft and 2nd W/T office were out of action the after guns were in local control only.
NUBIAN 20th July, 1943	One Near Miss Bomb	Nil	NUBIAN, while at Malta during an air raid, sustained superficial damage to structure from a near miss. Fighting Efficiency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
TYNEDALE 9th Aug., 1943	Two Near Miss Bombs	6 weeks including A's and A's	TYNEDALE, while at anchor in Augusta Harbour during an air raid, had two near misses off the port quarter. The bottom plating of the port plummer block compartment was fractured and structure in the vicinity of the after oil fuel tanks and the after magazine (No.2) was strained and minor leaks caused. Some rivets of the internal structure were sheared. Contents of No.4 oil fuel tank were transferred because oil was leaking into the plummer block compartment. Bolts of the sliding feet of port and starboard H.P. turbines were slightly bent and minor failure of auxiliary machinery occurred due to shock. Bushes of the starboard stern tube were slightly out of alignment and overheating occurred. Depth charges on the upper deck were displaced. The Type 285 radar aerials were fractured and rendered unusable. Fighting Efficiency - Impaired. Maximum speed was reduced to 15 knots. The type 285 radar was out of action.
NUBIAN 10th Aug., 1943	Number unknown <u>Near</u> <u>Miss Bombs</u>	Nil	NUBIAN, while in Augusta Harbour, during an air raid, sustained minor damage from splinters from near misses. Fighting Efficiency - Not impaired.
LEDBURY 12th Aug., 1943	Number unknown Near Miss Bombs	Nil	LEDBURY, while escorting a convoy in the Mediterranean, sustained superficial damage from near misses. Fighting Efficiency - Not impaired.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
EASTON 22nd Aug., 1943	Rammed	ll months	EASTON, while operating in the Mediterranean at 20 knots, rammed an enemy submarine proceeding at 10 knots on the surface. EASTON rammed the submarine on the starboard side abreast the gun and the submarine rolled to port, hung on EASTON's bows for a few seconds and then slid under her bottom, bumping the ship in several places. The fore end structure from the keel to 3 ft. below the upper deck and for 28 ft. from the bow to 16 station, was torn away or buckled badly. Bulkhead 16 was destroyed below the lower deck and bulkhead 18 suffered minor damage. The port bilge keel was slightly buckled. The fore end to bulkhead 16 was open to the sea, and the spirit room was flooded. A forward oil fuel tank (No.2) was flooded, minor leaks occurred in the bilges at the fore end of the forward boiler room and slow flooding occurred in No.3 naval store, all due to the submarine bumping along the outer bottom plating. Both propellers, shafts and A brackets were damaged. Fighting Efficiency Seriously impaired. The ship proceeded on the port engine and maximum speed was also reduced by the "rudder effect of the wreckage forward. Endurance was reduced by the loss of No.2 oil fuel tank.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ATHABASKAN (H.M.C.S.) 27th Aug., 1943 D.N.C.4B/R269	One Direct Hit radio controlled type H.S.293 delay action fuzed Bomb	2½ months including fitting of type 272	ATHABASKAN, while operating off the west coast of Spain at 23 knots, was attacked by enemy aircraft. A direct hit occurred on the edge of "B" gun deck and superstructure, port side, which passed out through the starboard side of the superstructure and burst 8 to 12 ft. clear of the ship's side abreast the fore end of the bridge. The starboard side and decks from abreast 'B' gun to the foremast, above the waterline, were set inboard and pierced by splinters, and the starboard side of the superstructure and bridge was stove in. Flooding through splinter holes took place in 'B' shell room Nos.1 and 3 oil fuel tanks, the torpedomen's mess and the low power and gyro room. Slow controlled flooding took place in the forward boiler room. The ship listed 12 degrees to starboard. Splinters caused minor fires between decks and a cordite fir in the ready use lockers of 'A' and 'B' guns. Blast from the bomb blew open the airlock doors in the boiler rooms and caused the fires to the steaming boilers to flash back into the boiler rooms, causing a minor oil fuel fire in No.2 boiler room. Speed was temporarily lost and the feed water was contaminated. Extensive splinter damage to important H.P. and L.P. circuits occurred and all lighting and power in and forward of the boiler rooms failed. Fighting Efficiency - Seriously impaired. The ship was temporarily immobilised but was later able to steam at 14 knots. 'A' and 'B' guns were in local control only and 'B' shell hoist was out of action. The main W/T, types 285, 291, 253 and 242 radar, director, rangefinder, torpedo fire control, depth charge hydraulic gear, starboard forward oerlikon and the gyro were out of action.
PUCKERIDGE 6th Sept., 1943	Two Contact Torpedoes fired from submarine	Sunk	PUCKERIDGE, while proceeding to Algiers at 20 knots, experienced a violent explosion aft which was followed 2 or 3 seconds later by a 2nd explosion of greater magnitude. The torpedoes struck the ship between the after bulkhead of the gearing room and the stern. The 1st explosion caused serious structural damage aft. The 2nd explosion caused much additional damage; the stern was blown off and the after end deck plating was wrapped over the searchlight platform. The gearing room and possibly the engine room were flooded rapidly. After the 2nd hit all electrical power failed. The ship settled by the stern and heeled about 10 degrees to port, both heel and trim increased rapidly. PUCKERIDGE sank about 6 minutes after being torpedoed.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
MENDIP 8th Sept., 1943	One Near Miss 250 kgm delay action fuzed Bomb	3 weeks	MENDIP was escorting a convoy to the Gulf of Salerno when a near miss detonated about 20 ft. off the port side abreast the forward boiler room. The port side plating and framing, abreast the engine room and boiler rooms was slightly distorted. The holding down bolts to the sliding feet of the port and starboard H.P. and L.P. turbines were fractured and distorted and the keep plates lifted. The holding down bolts of both boilers were distorted. Shock damage affected the turbo-generators and auxiliary machinery on the port side of the engine room. One diesel generator was seriously damaged. Shock effects also put the low power electrical supply temporarily out of action, causing failure of the main armament firing circuits. Shock damage put all radar and the gyro compass and Chernikeef log out of action. Fighting Efficiency - Seriously impaired. Damage to main machinery limited revolutions on the port engine to those for 8 knots and on the starboard engine to those for 20 knots. One diesel generator, several radar sets, the gyro compass and Chernikeef log were out of action.
LOYAL 9th Sept., 1943	One Direct Hit 3 inch Shell which did not detonate	Indeterminate (Repairs carried out at Bizerta in Oct. 1943. Completion date uncertain	LOYAL, while assisting in covering landing operations at Salerno, received a direct hit on the starboard side of the forward boiler room, about 3 ft. above the waterline. The shell perforated the ship's side and the bulkhead between the boiler rooms and came to rest without detonating in the tubes of No.2 boiler. The hole in ship's side was $3\frac{1}{2}$ inches diameter; the tear in the bulkhead between boiler rooms was 10 inches long. The shell cut eight low power multicore cables connecting the low power room and the engine rooms with the transmitting rooms and "X" turret. Fighting Efficiency - Impaired. Speed was reduced to 24 knots due to the loss of No.2 boiler. "X" turret was in local control; certain communications to aft were temporarily out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LAFOREY 9th Sept., 1943 D.N.C.4B/R269	Five Direct Hit 88 mm. two were delay action fuzed and one direct action fuzed two did not detonate or were solid shot Shells	2 weeks	LAFOREY, while assisting in covering landing operations at Salerno, received 5 shell hits on the port side. Direct Hit on the ship's side, at the after end of forecastle just above the upper deck, detonated about 4 ft. inboard and caused minor damage to bulkheads and surrounding structure. Direct Hit on the ship's side at waterline, abreast the forward boiler room, detonated on impact causing a hole in the ship's side 3 ft. by 1½ ft. Splinters damaged boiler tubes, oil fuel transfer pipe, 20-ton pump and the ring main. Power to 'B' and 'X' turrets, main W/T office, radar, No.2 L.P. generator and some lighting circuits was temporarily lost. Water flooded into the forward boiler room as the ship heeled. Direct Hit on the coaming of the forward boiler room air casing, detonated in the boiler uptake. Splinters damaged the uptakes and air casings of Nos.1 and 2 boilers the steam drum of No.1 boiler, main steam pipe, firemain, boiler tubes, ringmain and the bulkhead between boiler rooms. Direct Hit on the depth charge rack under the after torpedo tubes was deflected through base of firework tank and passed overboard without detonating. Direct Hit on the searchlight platform also passed overboard without detonating. The searchlight platform and emergency conning position sustained minor damage. Fighting Efficiency - Seriously impaired. The forward boiler room was out of action and efficiency of the after boiler room impaired by a temporary loss of air pressure. Power to 'B' and 'X' turrets and some W/T and radar circuits was temporarily lost.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WINCHELSEA 12th Sept., 1943 D.N.C.4B/R287	Four Near Miss probably 250 kgm delay action fuzed Bombs		WINCHELSEA, while escorting a convoy in North Sea at 10 knots, was near missed by 4 bombs which all appeared to detonate about 12 ft. below the waterline. A near miss on starboard bow wrecked the bow structure from keel to just below the upper deck and forward of asdic compartment. The fore end was open to the sea which flooded the fore peak, S.A. compartment, chain locker and naval stores. Flooding in No.2 store and asdic compartment was controlled. Three near misses on port bow buckled and distorted hull plating below the waterline on the starboard side abreast the engine room and after boiler room, and on the port and starboard sides abreast the after oil fuel tank (No.3). Hull plating above the waterline on the starboard side was buckled in way of the after boiler room. Structure was strained and minor leaks occurred in way of the forward oil fuel tanks (Nos.1 and 2), forward magazine group, engine room and after boiler room. The after fuel tank (No.3) was contaminated and oil was transferred forward. A/S gear and the gyro compass were damaged. Fighting Efficiency = Seriously impaired. Speed was first reduced to 7 knots, to avoid risk of further damage to the bow, but was later increased to 10 knots. The gyro compass was out of action.
CLEVELAND 16th Sept., 1943	Several Near Miss Bombs	Nil	CLEVELAND, while on bombardment work off Salerno, was near missed by bombs from several aircraft, which caused only minor damage. Bolts through the sliding feet of the starboard L.P. turbine were fractured; those of the H.P. turbine were badly bent. Fighting Efficiency - Not seriously impaired except for high speed steaming.
ST. CROIX 21/22nd Sept., 1943	Two Torpedoes probably Acoustic Homing type fired from submarine	Sunk	ST. CROIX, while escorting a convoy in the North Atlantic at 15 knots, was hit by two torpedoes, the first of which struck the port side near the propellers. This was followed by a second torpedo after which the ship sank very quickly.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
INTREPID 26/27th Sept., 1943	Two Direct Hit Bombs	Sunk	INTREPID, while at Port Laki, Leros Island, was hit by a bomb on the port side of the upper deck at the after end of the after boiler room (No.3), causing a hole 6 ft. by 3 ft. in the upper deck and 2 ft. by 3 ft. in the bulkhead between the engine room and boiler room. Splinters caused widespread serious damage. The ship's side was holed abreast the engine room and after boiler room and the port main steam pipe, oil fuel suction line, saturated steam line and No.3 boiler casing were all pierced. The after boiler room flooded to 3 ft. above the floor plates, and there was a minor diesel oil fire in the same compartment. The ship was towed to shallow water and temporary repairs commenced. Steam was made available in two boilers, the ship then being capable of 20 knots. Later, in a second attack, a further direct hit was scored aft near 'Y' gun. All the stern structure abaft 'X' gun was blown off. The ship settled by the stern with a 10 degree list to port and the forward end of the after superstructure awash. Four hours after the second attack the engine room was flooding through splinter holes. INTREPID capsized and sank 16 hours after the first attack.
All five destroy	Direct Hit	tion against 4	or 5 German Elbing Class Destroyers while on patrol off the north coast of Brittany. GRENVILLE was forced to retire from the action temporarily because of a fire started by a direct hit.
LIMBOURNE	Direct Hit Shell	2 days	LIMBOURNE was damaged by one direct hit and then returned to harbour having fired all her torpedoes.
ULSTER WENSLEYDALE TANATSIDE 4th Oct., 1943	"Shorts" Shell	l month Nil Nil	The three remaining destroyers all received superficial damage from "shorts". Fighting Efficiency for all ships - Not seriously impaired.
PANTHER 9th Oct., 1943	One or two Direct Hit probably four Near Miss Bombs	Sunk	PANTHER, while operating in company with CARLISLE in the vicinity of Scarpanto Strait, in the Aegean Sea, was attacked by enemy aircraft and sustained a direct hit just abaft the funnel. The bomb probably exploded near the keel and broke the ship's back. Another bomb was a hit or very near miss, and together with probably four others, caused damage to the ship. PANTHER broke in two and sank.

			DESTRUIERS = 1747
SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LAFOREY 13th Oct., 1943	Two Near Miss 250 kgm direct action fuzed Bombs		LAFOREY, while bombarding north of the Volturno River in company with LOCKOUT at 15 knots, was attacked by about twelve aircraft. Near misses caused minor damage. Fighting Efficiency - Not impaired.
LOOKOUT 13th Oct., 1943	One Near Miss 250 kgm direct action fuzed Bomb	Nil	LOOKOUT, while bombarding north of Volturno River at 18 knots in company with LAFOREY, was attacked by about twelve aircraft. One near miss caused slight damage. Fighting Efficiency - Not impaired.
KEPPEL October 1943	Rammed submarine	Not known	KEPPEL sustained damage to the bow structure as a result of ramming an enemy submarine. Fighting Efficiency - Slightly impaired.
HURSLEY (Now H.H.M.S. CRETE) 17th Oct., 1943	One Direct Hit 3.9 inch direct action fuzed Shell	Nil	HURSLEY, while operating in the Aegean Sea received a direct shell hit on the port side, just forward of 'A' gun, which detonated on impact about 3½ ft. below the forecastle deck This resulted in a hole in the ship's side, about 4 ft. by 3 ft. and other minor structural damage nearby. Splinters damaged the ship's starboard side, the forecastle deck, the forward oil fuel filling line and some minor electric leads. Two cartridges in the port forward ammunition chute were pierced by splinters and a cordite fire was started. This caused minor fires among clothing, hammocks and mess deck fittings. Fighting Efficiency - Slightly impaired. The port forward 4 inch ammunition chute was out of action.
HURWORTH 22nd Oct., 1943	One Contact	Sunk	HURWORTH was assisting the Greek ship ADRIAS, off Leros in the Aegean Sea when a mine exploded on the starboard side just abaft the bridge, probably abreast the forward boiler room. The ship broke in two near the break of forecastle, and a serious oil fuel fire started. The fore end remained afloat for about 3 minutes and the after end for about 15 minutes.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
LIMBOURNE 23rd Oct., 1943	(i) One Contact Torpedo fired from E=boat (ii) Torpedo from our own forces	Sunk	LIMBOURNE was on patrol off the French coast, in company with CHARYBDIS when a torpedo struck the ship forward of the low power room. All fore end structure below the waterline, from just forward of the boiler rooms, and forecastle deck from forward of the bridge was blown away. The boiler room bulkhead was intact. The ship listed heavily to starboard. A minor fire started in the low power room. Steam temporarily failed due to contaminated oil fuel. When steam was raised all attempts to get under way proved unsuccessful; the ship turned in uncontrollable circles. The attempts to steam the ship were ultimately abandoned; she was taken in tow by TALYBONT but yawed badly, causing the tow to part. The after magazine and engine room were flooded deliberately and the ship abandoned. LIMBOURNE was finally sunk by a torpedo from TALYBONT.
ECLIPSE 24th Oct., 1943	One Mine in 48 fathoms	Sunk	ECLIPSE was carrying army reinforcements to Leros in the Aegean Sea when an explosion occurred under the starboard side of the ship near the forward boiler room. A serious fire started in the bridge structure, probably fed by oil fuel from the forward galley tank. This caused the explosion of ready use ammunition at the starboard forward oerlikon and possibly at 'B' gun. The ship quickly took a heavy list to port which steadily increased until she lay on her beam ends and finally sank bows first about 5 minutes after being hit. Before sinking ECLIPSE was seen to break in two abreast the bridge.
BELVOIR 30th Oct., 1943	One Direct Hit Bomb which did not detonate	Nil	BELVOIR was operating off Castelloriso, in the Aegean Sea, when a bomb hit and penetrated to the stabiliser compartment but failed to detonate. The bomb was removed from the ship and thrown overboard. Fighting Efficiency - Not impaired. After removal of the bomb the ship proceeded under her own power at 23 knots.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
ROCKWOOD 11th Nov., 1943	One Direct Hit Radio Controlled Glider Bomb type H.S.293 which did not detonate	Indeterminate (Ship placed in Reserve)	ROCKWOOD was operating in the Aegean Sea at 24 knots, when a radio controlled bomb hit the port side of the upper deck at the after end of the gearing room. It perforated the upper deck platform, ploughed diagonally across the after bulkhead of the gearing room and passed out through the starboard side at lower deck level without detonating. The hole in the upper deck was $5\frac{1}{2}$ ft. by $2\frac{1}{4}$ ft., and that in ship's side $5\frac{3}{4}$ ft. by $3\frac{3}{4}$ ft. The gearing room, starboard oil fuel tank (No.3) and starboard lower deck crew's space flooded, causing the ship to list 8 to 10 degrees to starboard. The after switchboard was damaged and various electric leads were cut. Power failed and essential services were supplied by diesels. When the forced lubrication pumps flooded, the gearing room was abandoned and the main engines had to be shut down. Fighting Efficiency - Severely impaired. The ship was immobilised through failure of the forced lubrication system, which necessitated shutting down main engines. PEMARKS This incident emphasised the need for adaptors to be supplied so that $3\frac{1}{2}$ -inch bronze fuelling hose can be used in an emergency as additional suction hose for the 70-ton portable pump - A.F.O.5580/44 refers.
DULVERTON 13th Nov., 1943	(i) One Direct Hit Radio Controlled Glider Bomb type H.S. 293 (ii) Torpedo from own forces	Sunk	DULVERTON was operating in the Aegean Sea at 22 knots when a bomb struck the ship on the port side abreast the bridge. The bow structure forward of the bridge was torn away. The ship settled by the bow and was on fire from end to end. DULVERTON was finally sunk by torpedo from own forces $1\frac{3}{4}$ hours after the bomb hit.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
QUAIL 15th Nov., 1943 D.N.C.6/R303	One Non Contact probably type G.C. charge 1500 lbs. Mine in 8 fathoms	Indeterminate (Ship not repaired)	QUAIL was entering Bari harbour at 5 knots when an explosion occurred under the propellers to port of the middle line, as a result of which the after end structure was blown bodily upwards and forced forward. Major structural damage extended to the after bulkhead of the gearing room. There were large fractures in the hull plating between the upper and lower decks on both sides abreast the magazines and steering compartment and deep buckles around the main hull at the after end of the boiler rooms. The engine room bulkheads were slightly damaged. The compartments abaft the gearing room, including after oil fuel tanks, magazines and steering compartment flooded to the waterline. There was controlled flooding in the gearing room, and minor leakage into the after boiler room. All turbine feet were fractured; both shafts were bent and their propellers damaged. The after boiler room had to be shut down due to damaged bulkhead main steam valves. Auxiliary machinery suffered various minor defects. The starboard turbo-generator and both steering motors were severely damaged. 'Y' mounting and the after depth charges were blown overboard; 'X' mounting was severely damaged and the after torpedo tubes were displaced. Shock severely damaged the gyro compass, radar and W/T equipment. Fighting Efficiency - Severely impaired. The ship was immobilised by damage to shafts and main engines. 'Y' mounting was lost overboard. 'X' mounting, the after torpedo tubes, and radar an gyro compass equipment were out of action.
LOYAL 19th Nov., 1943	One Direct Hit probably 3 inch direct action fuzed Shell	Nil	LOYAL, while intercepting an enemy convoy off the east coast of Italy, was fired on by shore batteries, which obtained one direct hit on the port side forward, abreast the paint shop at upper deck level. This hit caused a hole in the side plating 24 ins. by 12 ins. and minor splinter damagnearby.
			Fighting Efficiency - Not impaired.
QUILLIAM 19th Nov., 1943	Six Direct Hit 40 mm. and 20 mm. Shell	Nil	QUILLIAM, while intercepting an enemy convoy off the east coast of Italy, received six direct hits above the waterline on the port side of the after end, which caused only minor damage. Fighting Efficiency - Not impaired.

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SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
WINCHELSEA 21st Nov., 1943	One Near Miss Radio Controlled Glider Bomb type H.S.293 direct action fuzed	17 days	WINCHELSEA was escorting a convoy in the North Atlantic at 13 knots when a glider bomb was shot down by close-range weapons and detonated on contact with the water about 50 yards off, abreast the port side. No.3 port and centre oil fuel tanks were strained and leaking. Other minor hull damage and leaks probably resulted from local weaknesses left after the repair of bomb damage sustained on 12th September, 1943. A temporary failure of electrical power resulted when the port H.P. supply breaker opened owing to shock. Training gear of the type 291 radar aerial was out of alignment Fighting Efficiency - Not seriously impaired. Endurance was reduced through contamination of two after oil fuel tanks.
ZETLAND 2nd Dec., 1943	(i) One Near Miss 500 kgm Bomb (ii) Explosion of two near by Merchant Ships	6 weeks	ZETLAND, while alongside BICESTER at Bari harbour during an air raid, was damaged by splinters, blast and debris from the explosion of two nearby merchant ships containing ammunition and petrol, and from a near miss bomb which detonated off her port quarter. The forward and after superstructure, forecastle deck, funnel, gun shields and W/T and radar aerials were damaged to varying extents. The port propeller was damaged by the near miss bomb and the tail shaft was forced slightly out of alignment. Electrical power was temporarily lost when the main breakers were opened by shock. The director was stiff to train owing to splinter and blast damage. Fighting Efficiency - Seriously impaired. The port engine had to be shut down owing to vibration. Efficiency of the director and radar and W/T equipment was reduced by damage.
BICESTER 2nd Dec., 1943	(i) One Near Miss 500 kgm Bomb (ii) Explosion of near by Merchant Ships	6 weeks	BICESTER, while alongside ZETLAND at Bari harbour during an air raid, was damaged by splinters, blast and debris from the explosion of two nearby merchant ships, containing ammunition and petrol, and a near miss bomb which detonated about 30 yards off her port quarter. Blast and splinters damaged the ship's side, upper and forecastle decks, topsides and fittings; the fore yard arm was broken and several ready use lockers holed and distorted. Electrical power was temporarily lost when the main breakers opened by shock. The main armament was in local control owing to damage to the director and blast damage to electric circuits and telephones generally. The air pressure in the after boiler room was lost through a damaged air lock door. Fighting Efficiency - Seriously impaired. Maximum speed was reduced to approximately 22 knots through loss of air pressure in the after boiler room. The main armament was in local control only. Types 285 and 271 radar and the gyro compass were out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HOLDERNESS 5th Dec., 1943 D.N.C.4B/R272	One Non Contact Mine in 17 fathoms charge about 90 lbs.	6 months	HOLDERNESS was escorting a convoy off Cromer at $11\frac{1}{2}$ knots when an explosion occurred under or immediately abaft the stern. The after end was lifted and the side plating, framing and decks, abreast the after magazines and steering compartments, from the keet to the upper deck were severely buckled. Whipping also caused buckles abreast the after boiler room and bridge and between after oil fuel tanks. The rudder was blown away. There was minor controlled flooding in the steering compartment, after magazine (No.3) and after boiler room. The after oil fuel tanks were contaminated by sea water. Both steering motors were put out of action. One holding down bolt on the after 4 inch gun fractured and the depth charge trap was distorted. Shock damaged W/T aerials. C.S.A. smoke filled the after compartments and prevented an immediate assessment of damage.
			Fighting Efficiency - Seriously impaired. The ship was able to proceed at 15 knots steered by her main engines. Endurance was reduced by the contamination of the after fuel tanks. REMARKS This incident emphasised the need for:- 1. Carley floats stowed abreast the after superstructure in Type 1 Hunts to be repositioned to allow movement of the portable diesel pump along the upper deck. 2. Increasing the supply of hand saws to destroyers and below. This was approved, A.F.O.2263/44 refers. 3. Fitting of rigid resilient mountings to steering motors and pumps. This was approved C.A.F.O.2724/44 refers.
HOLCOMBE 12th Dec., 1943 D.N.C.N6/BR331	Probably an Acoustic Homing Non Contact Torpedo fired from submarine	Sunk	HOLCOMBE was escorting a convoy in company with TYNEDALE in the Mediterranean when a torpedo exploded at the after end near the after oil fuel tanks with a large burst of bright flame. The after bulkhead of the engine room was blown in; the ship settled rapidly by the stern, listed to port until on her beam ends and sank almost vertically with her bows in the air, four and a half minutes after being hit. It is considered that all or part of the cordite in the after magazine burned and vented through the decks.

NATURE OF	TIME OUT OF	
ATTACK	ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
Probably an Acoustic Homing Torpedo fired from submarine	Sunk	TYNEDALE was escorting a convoy in company with HOLCOMBE in the Mediterranean at 5 knots when a torpedo hit the ship on the port side abreast the funnel. TYNEDALE broke in two, the bow portion rolling to port and quickly sinking, midships end first. The stern floated for a short time before sinking.
One Moored Non-Contact Mine probably type G.R. Charge 90 lbs. in 8 fathoms	Indeterminate (Ship not repaired)	WORCESTER was escorting a convoy in the North Sea at 15 knots when an explosion occurred under the stern. The stern structure abreast and abaft the after magazines was extensively buckled, particularly on the starboard side. The bottom plating was split in several places and torn away from the counter over a length of 15 ft. Two deep buckles girthed the ship abreast the gland compartment and the after magazines. Minor damage extended to the after end of the engine room. The stern dropped until the upper deck aft was 5 ft. under water. Practically all compartments abaft the engine room, including all the after oil fuel tanks, the gland compartment, after magazines and stering compartment flooded to the waterline. The ship listed, first to port but later to starboard a maximum of 10 degrees. The peace tanks and forward oil fuel tanks were counterflooded, and heavy weights were jettisoned from aft to reduce heel and trim. The steering gear was wrecked, one blade of the starboard propeller was blown away, and some machinery suffered shock damage. The type 272 radar equipment was also slightly damaged by shock. The stern depth charge trap was distorted. Fighting Efficiency - Severely impaired. The ship was immobilised owing to distortion of both shafts. The after 4.7 inch gun could not be fired for fear of increasing the structural weakness at the after end.
	Probably an Acoustic Homing Torpedo fired from submarine One Moored Non-Contact Mine probably type G.R. Charge 90 lbs. in	Probably an Acoustic Homing Torpedo fired from submarine One Moored (Ship not repaired) Type G.R. Charge 90 lbs. in

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
HURRICANE 24/25th Dec., 1943	Probably an Acoustic Homing Torpedo fired from submarine	Sunk	HURRICANE was operating in the North Atlantic at 19 knots when a torpedo struck at the after end near the steering compartment. About 30 ft. of the stern structure was blown away and a zone of serious damage extended forward of this for a further 25 ft. The quarter deck was blown upwards at its after end to an angle of about 45 degrees, the compartments below including the after magazine and shell rooms and lower deck cabin spaces being open to the sea for about 22 ft. The warhead magazine and gland spaces flooded slowly. The ship heeled 5 to 10 degrees to port. During the night heavy weights, such as depth charges and torpedoes, were jettisoned in order to lighten the ship and reduce the list, and oil fuel was transferred from aft. Immediately after the hit the main engines stopped and the ship was immobilised. Both the port and starboard gear cases were fractured but otherwise main and auxiliary machinery suffered little major damage. Electrical power failed at the after end but secondary lighting functioned correctly. It was finally decided to sink the ship, and she was abandoned; all hatches, flood valves, seacocks, etc., had been opened. HURRICANE listed to port and sank by the stern 174 hours after the attack.
SAUMAREZ 26th Dec., 1943 D.N.C.N6/BR313	One Direct Hit 11 inch Shell which did not detonate "Shorts" from direct action fuzed Shells	2½ months	SAUMAREZ, while in action against the SCHARNHORST at 32 knots, received a direct hit on the director control tower, which passed through the tower and overboard without detonating. A number of shorts fell close to the starboard side and detonated on impact with the water, causing extensive splinter damage to the hull and superstructure above the waterline. There was minor flooding through splinter holes into the engine room bilges. One forced lubrication pipe was punctured by a splinter and the starboard engine room supply fan was damaged. There was other less important splinter damage to machinery. Splinters also damaged the electric leads of one steering motor and other circuits. A minor fire was started by escaping oil and damaged electric leads. One splinter pierced and set off a smoke float, the fumes of which were drawn down into the after messdeck; the after magazine and shell rooms were flooded owing to the impression of a fire burning. Splinters also caused serious damage to radar offices; the rangefinder and gun armament were also affected and W/T aerials were brought down. Fighting Efficiency — Seriously impaired. The starboard engine was put out of action by splinter damage to the forced lubrication system. The ship proceeded on the port engine. All radar sets, the director control tower, and one steering motor, were out of action.

SHIP DATE OF INCIDENT	NATURE OF ATTACK	TIME OUT OF ACTION	BRIEF ACCOUNT OF DAMAGE AND LESSONS LEARNED
JERVIS 23rd Jan., 1944	One Near Miss Radio Controlled Glider Bomb type H.S. 293	2½ months	JERVIS was operating in the Mediterranean, west of Naples, in company with JANUS, when a glider bomb passed through and detonated near the fore end, blowing away 20 ft. of the bow structure above and including the upper deck. Below the upper deck the fore end was bent 75 degrees to port. Between the keel and forecastle deck for 50 ft. abaft the bow, the hull structure was buckled and distorted. About 55 ft. of the fore end including Nos.l and 2 central stores, the fresh water tank and the provision room, was open to the sea. The cooling unit of the forward guns was temporarily out of action due to a fracture in the fire main. Fighting Efficiency - Seriously impaired. Speed reduced to 5 knots, (later increased to 7 knots) owing to weakness of the bow structure.
JANUS 23rd Jan., 1944	One Torpedo dropped by aircraft	Sunk	JANUS was operating in the Mediterranean at night, west of Naples, in company with JERVIS at 9 knots, when the ship was torpedoed on the port side abreast the bridge near "B" magazine. Within a short time of being hit the bow broke away and floated down the starboard side. The bridge structure was partly missing after the explosion and the remainder was wrecked. Only one explosion was heard and it was reported that "B" magazine, possibly together with "A" magazine, exploded, but there is no definite evidence to support this suggestion. JERVIS, who took avoiding action, heard the explosion and saw a "sheet of flame" which may have been the flash of the detonation when the torpedo struck JANUS. The secondary lighting did not function completely. The ship rapidly settled by the bow with a heavy list to port, and sank within 7 or 8 minutes of being hit.
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