



Arado Ar 196

Part I: List of works numbers Ar 196 test samples, pilot series A-0 and B-0, series A 1

Note: With this presentation, we want to inform the reader about the latest state of knowledge of the team "Luftwaffe-zur-See" and at the same time encourage further assistance in tracking down. Of course, not all known identifiers of the Arado Ar 196 can be assigned to the individual work number, due to insufficient sources of information and no longer existing files / documents or the corresponding evidence simply missing.

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Ar 196 V 1, W.Nr. 2589



Ar 196 V 3, W.No. 2591



Ar 196 B-02, W.No. 2520



Ar 196 A 1, W.Nr. 196 0012

Technical data / types:	Ar. 196 B	Ar. 196 A0 / A1	Ar. 196 A2	Ar. 196 A3	Ar. 196 A4	Ar. 196 A5	/
Span:	12.44 m	12.44 m	12.44 m	12.44 m	12.44 m	12.44 m	
Length:	11,30 m	10.96 m	10.96 m	10.98 m	10.96 m	10.98 m	
Height:	5,03 m	5,00 m	5,00 m	5,00 m	5,00 m	5,00 m	
Aerodynamic surface:	28.3 m²	28.3 m²	28.3 m²	28.5 m²	28.3 m²	28.5 m²	
Empty weight:	ka	2335 kg	2214 kg	2214 kg	2214 kg	2210 kg	
payload:	ka	665 kg	1063 kg	1201 kg	1286 kg	1240 kg	
Flight Weight:	ka	3100 kg	3277 kg	3415 kg	3500 kg	3450 kg	
Maximum V max:	320 km / h	320 km / h	320 km / h	320 km / h	320 km / h	320 km / h	
Dive V max:	450 km / h	450 km / h	450 km / h	465 km / h	510 km / h	465 km / h	
Catapult start V min:	110 km / h	110 km / h	110 km / h	120 km / h	110 km / h	120 km / h	
cruising speed	280 km / h	280 km / h	250 km / h	250 km / h	285 km / h	255 km / h	
Loading speed:	100 km / h	100 km / h	104 km / h	104 km / h	110 km / h	104 km / h	
Climbing time at 1,000 m:	ka	ka	ka	2,5 min	ka	2,3 min	
Ceiling:	ka	ka	5550 m	6000 m	5000 m	6000 m	
Range with bomb load	ka	ka	~ 860 km	~ 860 km	~ 1270 km	~ 1020 km	
Engine:	BMW 132K	BMW 132K	BMW 132K	BMW 132K	BMW 132K	BMW 132W	
Power:	880 hp	880 hp	960 hp	960 hp	960 hp	960 hp	
Fuel reserves:	1x 600 l	2x 300 l	2x 300 l	2x 300 l	2x 400 l	2x 300 l	
Lubricant supply:	27.5 l	27.5 l	27.5 l	56 l	66 l	56 l	
Armament: (Mun. Stock)	1x 7,92 mm MG 15 (525 rounds)	1x 7.92 mm MG 15 (525 rounds)	1x 7.92 mm MG 15 (525 shots)	1x 7.92 mm MG 15 (525 shots)	1x 7.92 mm MG 15 (525 shots)	2x 7,92 mm MG 81 Z (2000 shots)	2x

rear stall nose wing	1x 7,92 mm MG 17 (500 rounds)		1x 7.92 mm MG 17 (500 shots) 2x 20 mm MG FF (2x 60 shots)	1x 7.92 mm MG 17 (500 shots) 2x 20 mm MG FF (2x 60 shots)	1x 7.92 mm MG 17 (500 shots) 2x 20 mm MG FF (2x 60 shots)	1x 7,92 mm MG 17 (500 shots) 2x 20 mm MG FF / M (2x 60 shots)	2x
bomb load:	2x 50 kg	2x 50 kg	2x 50 kg	2x 50 kg	2x 50 kg	2x 50 kg	
Crew:	2 men (pilot and observer zgl. Bordfunker / gunner)						

Built Description:

Type :	Arado Ar 196> single-engine catapultable multi-purpose aircraft
series:	V, A0, A1, A2, A3, A4, A5, B, C (planned), E 380 (project)
Tags:	Ar 196 A2 / A4: from factory no. 100 117, as A2 but with changes (installation enlarged tanks), after carrying out in designation: Ar 196 A4 to change. Ar 196 A3 / U1: with ice scraper Ar 196 A4 / U1: with windscreen towing system Ar 196 A3 / A5: from factory no. 100 212, as A3 but with changes (installation Fug XVI, MG 81 Z, Mech. Compensator, engine modification = installation VI after implementation in designation: Ar 196 A5 to change.
Production time:	Autumn 1936 - August 1944
Quantity:	~ 571
Hull material:	The fuselage consists of a welded tubular steel framework with a shaping framework. The hull paneling was up to the height of the driver's compartment of metal (Hydronalium), covered from the observer's room down to the rear with fabric. From the model Ar 196 A2, the right-hand side paneling for receiving I is provided with a corresponding bulge.
Structure:	The structure is manufactured as a low-deck supporting structure in two-bar design. The wings are hinged to the hull on both sides and supported by two floats. For reasons of saving space when parking the aircraft, the wings are arranged to pivot backwards. The rounded edge caps were interchangeable.
tail:	The vertical and vertical stabilizer is mounted freely on the fuselage. The fins are tin-planked. The elevators, ailerons and ailerons have metal nose and are fabric. The flaps have Blechnasen, down Blechbeplankung and fabric upholstery.
Floating factory:	Two interchangeable single-stage, all-metal floats, made of hydronalium and fitted with water rudders. It is attached to the fuselage by means of two strut floats are outfitted with profile wire in side and float planes. Float content 2,750 l for each float. Each float contains a fuel tank of 300 liters capacity designed as a case of Ar. 196 A4: 400 liters), a shaft for emergency munitions and emergency containers. The B-series used a center float with a water rudder and two smaller side support floats under the wings. The volume was 4,535 liters and the sack tank le addition, this float also had containers for emergency ammunition, emergency food and two foggers. The center swimmer was attached to the hull of the m four struts and wire crossings. The support floats essential for a mid-level float were also made of hydronalium. They had no oars. They were attached to the wings.
Engine:	The unit engine was the air-cooled 9-cylinder radial engine BMW 132 K equipped with fuel injection, floor loader, automatic boost pressure regulator. The c individual streamlined lobes for the valve levers, an expansion flap ring, and engine maintenance flaps. From the B series was on the right side also a rece gun. The wooden two-bladed propeller used in the first V-models was already replaced by an adjustable three-blade wood propeller in the fifth prototype. The propeller had a diameter of 310 cm. A three-piece VDM adjustable air screw is used.
Other equipment: (different depending on the type)	Radio sets: On- board radios, among others: (FuG Va U, FuG X, FuG 16, FuG 16 Z), EIV. 4 (Eigenverständigungsanlage), antenna reel with landing anten finder G 4, FuG XXV (identification device), radio measuring equipment (radar): FuG 200 "Hohentwiel" (ship search device up to 100 km range) on a few machines, sea equipment: hot stopper with 3 wire ropes for lifting , Hahnpoot for towing, towing anchor or sea anchor, 3 lines, flashlight with 7 m long pipe, miscellaneous: aircraft killer (explosive), if necessary (depending on use) 2 MP 40 with 6 magazines, 2 fog machines SN 50 were no longer installed from Message and Signal Devices: 1 double-barreled pilot light gun, 1 set of light cartridges for 30 cartridges, hand-held device, 1 pair of flag flags, 2 flare sets horn, 2 emergency signal containers (Content: 1 star pistol each with a set of red (12), white (24) and green (12 1 signal box), rescue equipment: 1 cabin fire extinguisher, emergency equipment bag, medical kit, 2 life jackets, 1 back parachute with one-man dinghy, 1 seat cushion one-man inflatable boat ,

References:

Ar 196 experimental design, built at Arado / Brandenburg and Warnemünde (number of pieces: 6)				
Arado W.No.	Type:	Stammkz .:	Verbandskz .:	Remarks and whereabouts:
2589	Ar 196 V-1	D - IEHK	-	Twin Float, BMW 132 D engine with 880 hp and Heine two-bladed propeller. 25.05.1937 - finished. 01.06.1937 - First flight on the Plauer See in Brandenburg. Start of factory testing and trial flights. 06.07.1937 - Transferred to Travemünde and presented to the proving ground See. 10.09.1937 - Takeover by the E-Stelle See / Travemünde, start of the trial. 11.02.1938 - still reported at the E-Stelle See / Travemünde. 03/03/1938 - Was the pattern withdrawn from testing, rebuilt for a possible speed world record for seaplanes, engine installed, three-bladed propeller, improved aerodynamic shape. 03.11.1938 - RLM is aware of this project and prohibited it immediately. Further whereabouts unknown.
2590	Ar 196 V-2	D - IHQI	-	Twin Float, BMW 132 D engine with 880 hp and Heine two-bladed propeller. 18.06.1937 - finished. 00.09.1937 - First flight and start of factory testing and test flights. 27.06.1938 - reported at the E-Stelle See / Travemünde in testing. 09.11.1938 - Successful assignment to prepare the pattern for the further "Atlantikprobung" accordingly. 07.10.1939 - still reported at the E-Stelle See / Travemünde in testing. Further whereabouts unknown.
2591	Ar 196 V-3	D - ILRE TJ  HF	-	Central swimmer, BMW 132 J engine with 815 hp and Heine two-bladed propeller. 00.09.1937 - First flight and start of factory testing and test flights. 01.12.1937 - reported at the E-Stelle See / Travemünde in trial. 19.02.1938 - First catapult launch 31.03.1939 - still reported at the E-Stelle See / Travemünde. 00.00.1940 - reported at the pilot school C 17 (lake) in Pütznitz 02.09.1941 - crashed in the Saaler Bodden.
2592	Ar 196 V-4	D - OVMB	-	Central floats, BMW 132 K engine with 880 hp and Heine two-bladed, later black three-bladed propeller 00.00.1938 - reported at the E-Stelle See / Travemünde in testing. 08.12.1938 - At sea check on the Baltic Sea, the complete engine broke down together with carrier, machine
100 090 (196 0090)	Ar 196 A 2 / V-5	CK  EZ CK  FE	-	modified Ar 196 A 2 with central float and increased fuel capacity (800 l) 00.00.1940 - manufactured and delivered as Ar 196 A 2, rebuilt to central float. 03.07.1940 - registered with the E-Stelle See / Travemünde in trial with the identification: CK  FE . 09.08.1940 - Start of catapultstarter trials. 12.12.1942 - transferred from Travemünde to Friedrichshafen / Lake Constance, for further testing. 31.01.1943 - transferred from Friedrichshafen to Travemünde. 28.07.1944 - reported at the E-Stelle See / Travemünde. Further whereabouts unknown.

100 191 (196 0191)	Ar 196 A 3 / V-6	DH  HK	-	• Prototype of the Ar 196 C-series, enlarged floats • 23.09.1941 - First flight and start of factory testing. • 07.10.1941 - reported by E-Stelle See / Travemünde in trial. • 13.04.1943 - reported by the E-Stelle See / Travemünde in trial. • 00.05.1943 - registered at the 4. (Bord) / Fl.Erg-Gr. (See) in Kamp, later Erg. Coastal Close-up and airborne : • 03.08.1944 - Eastern Baltic, breakage, total loss
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Ar 196 Series B-0, serial number: 2519 - 2521 (3 pieces), built by Arado / Brandenburg

Arado W.No.	Type:	Stammkz.:	Verbandskz.:	Remarks and whereabouts:
2519	Ar 196 B-01	D - INCN	WL - INCN	• 18.10.1938 - Was presented the representative of the RLM at the E-Stelle lake in Travemünde. • 30.03.1939 - reported by E-Stelle See / Travemünde in trial. • 14.04.1939 - Transferred to Wilhelmshaven aboard the battleship <i>ADMIRAL SCHEER</i> • 18.4. - 03.05.1939 - Atlantic testing by E-Stelle See, with catapult <i>launches</i> by <i>ADMIRAL SCHEER</i> in front of • 24.06. - 07/14/1939 - in repair, as a result of considerable damage in the Atlantic testing. • 10.08.1939 - reported at the E-Stelle See / Travemünde in testing. • 21.07.1941 - Travemünde, starting break, rollover, 100%
2520	Ar 196 B-02	D - IPOD	-	• 00.04.1939 - reported at the 10th (lake) / Lehrgeschwader 2 in Travemünde, followed by Atlantic testing on b and <i>ADMIRAL GRAF SPEE</i> . • 00.00.1940 - handed over to FFS (lake) 2 in Pütznitz, later FFS C 17 (lake) • 07.03.1943 - Riebnitzer Bodden, emergency landing at sea, 100%
2521	Ar 196 B-03	D - IRMH	-	• 20.05.1939 - reported at the E-Stelle See / Travemünde in testing. • 04.10.1939 - reported in the inventory of E-Stelle See. Further whereabouts unknown.

Further vacant identifiers for Ar 196 B-0 are: (**SD + BV**) where the assignment is still outstanding.

Ar 196 Pre-Series A 0, No. : 2522 - 2524, 100 011, (2586 - 2588 = doubtful), built at Arado / Brandenburg

At Arado manufactured from November 1938, 10x Ar 196 A 0, 6 machines ordered on 31.03.1939 by the Reichsluftfahrtministerium.

Arado W.No.	Type:	Stammkz.:	Verbandskz.:	Remarks and whereabouts:
2522	Ar 196 A-01	D - ISFD TJ  HB	-	• 13.01.1939 - reported by the E-Stelle See / Travemünde in trial. • 17.04.1940 - with new identification TJ  HB reported at the E-Stelle See / Travemünde • 26.05.1941 - reported in the inventory of the E-Stelle See. • 00.06.1941 - Transferred in the replenishment stock of the aircraft group (See) Kiel. • 08.07.1941 - assigned the FFS C 17 (lake) in Pütznitz. Further whereabouts unknown.
2523	Ar 196 A-02	-	-	Whereabouts unknown.
2524	Ar 196 A-03	-	-	Whereabouts unknown.
2586	Ar 196 A-0?	D - IYFS	-	• 31.03.1939 - registered with the E-Stelle See / Travemünde in air traffic control. • 07.06.1939 - reported in the inventory of the E-Stelle See. • 12.6. - 26.07.1939 - reported at the 10th (sea) / Lehrgeschwader 2 in Travemünde, including on-board aircraft <i>GNEISENAU</i> . Further whereabouts unknown.
2587	Ar 196 A-0?	-	-	Whereabouts unknown.
2588	Ar 196 A-0?	-	-	Whereabouts unknown.
100 011 (196 0011)	Ar 196 A-010	-	-	• 00.11.1940 - reported in the inventory of the Luftpark (See) Kiel-Holtenau • 22.11.1940 - Kiel-Holtenau, emergency landing, 50%

Further vacant identifiers for Ar 196 A-0 are: (**D - IPDB; D - IYPS; D - OPDX; L2 + X41**) where the assignment is still outstanding.

Ar 196 Series A 1, manufactured from June 1939 in Warnemünde, Arado Factory number block: 100 012 - 100 031 (20 pieces)

LW-W.Nr.	Type:	Stammkz.:	Verbandskz.:	Remarks and whereabouts:
196 0012	Ar 196 A 1	D - ISLD TJ  HC	6W  AN	• 20.07.1939 - reported by the E-Stelle See / Travemünde in trial. • 00.09.1939 - reported at the airborne squadron 5/196 in Kiel. On-board aircraft heavy cruiser <i>ADMIRAL HIPF</i> • 03.05.1940 - with new identification TJ  HC reported at the E-Stelle See / Travemünde, installation Heyde N • 03.09.1940 - Catapult start of the heavy cruiser <i>PRINZ EUGEN</i> in Gotenhafen. • 05.10.1940 - reported in the inventory of E-Stelle See. • 22.04.1941 - reported at the FFS C 17 (lake) in Pütznitz. Further whereabouts unknown.
196 0013	Ar 196 A 1	-	T3  DH	• 27.08.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board aircraft <i>Schlachtschiff SCHARNHORST</i> • 23.11.1939 - Flight unclear, damaged by heavy artillery pressure, 25% • 29.11.1939 - delivery to industry for repair. • 08.07.1941 - assigned the FFS C 17 (lake) in Pütznitz. • 17.11.1942 - Pütznitz, starting break, rollover, 100%
196 0014	Ar 196 A 1	-	T3  AH	• 00.08.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, board plane battleship <i>ADMIRAL GRAF SPEE</i> • 13.12.1939 - at battle in front of the Rio de Plata, burned out • 17.12.1939 - total loss due to self-sinking of the ship.
196 0015	Ar 196 A 1	-	T3  CH 6W  ? N	• 00.08.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board abattoir <i>GNEISENAU</i> . • 08.10.1939 - damaged by air pressure of the heavy flak of the ship. • Dec. 23, 1939 - Discharge on board <i>fliegerstaffel 5/196</i> in Kiel • 03.11.1942 - transferred from Luftzeuggruppe (See) / Kiel to the depot during winter to Luftpark Świnoujście. whereabouts unknown.
196 0016	Ar 196 A 1	-	T3  BH 6W  ? N	• 00.08.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board armored ship <i>GERMANY</i> / <i>LÜTZOW</i> • 27.11.1939 - delivery to industry for a special overhaul. • 27.03.1940 - levy on board <i>fliegerstaffel 5/196</i> in Kiel. Further whereabouts unknown.
196 0017	Ar 196 A 1	GB  NA	-	• 28.03.1940 - reported at the E-Stelle See / Travemünde in testing.

				02.08.1940 - reported in the inventory of the E-Stelle See. Further whereabouts unknown.
196 0018	Ar 196 A 1	-	T3  GH	01.09.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board aircraft Schlachtschiff <i>GNEISENAU</i> 23.11.1939 - Flight unclear, damaged by heavy artillery pressure, 25% 27.11.1939 - Damage due to maritime damage has risen to 60%. 29.11.1939 - delivery to industry for repair or recycling. Further whereabouts unknown.
196 0019	Ar 196 A 1	-	T3  HH	23.09.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, airborne battleship <i>ADMIRAL SCHEER</i> 22.10.1939 - On-board aircraft <i>Schlachtschiff SCHARNHORST</i>. 10.11.1939 - On-board aircraft Schlachtschiff <i>GNEISENAU</i>. 23.11.1939 - Flight unclear, damaged by heavy artillery pressure, 25% 27.11.1939 - Damage due to maritime damage has risen to 60%. 29.11.1939 - delivery to industry for repair or recycling. Further whereabouts unknown.
196 0020	Ar 196 A 1	SD  BN	T3  FH 6W  ? N	01.09.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board aircraft <i>Schlachtschiff SCHARNHORST</i> 27.11.1939 - Damage and failure due to sea damage, 20%. 29.11.1939 - delivery to industry for repair. - Dec. 23, 1939 - Discharge on board <i>fliegerstaffel 5/196</i> in Kiel 14.03.1941 - On-board aircraft HSK 5 <i>PINGUIN</i> 08.05.1941 - Total loss at sinking HSK 5 <i>PINGUIN</i> north of the Seychelles / Indian Ocean.
196 0021	Ar 196 A 1	-	6W  ? N	16.10.1940 - at the board <i>fliegerstaffel 5/196</i> in Kiel, on-board aircraft HSK 8 <i>KORMORAN</i>. 19.11.1941 - Total loss during the demolition of the ship off the Australian coast.
196 0022	Ar 196 A 1	-	6W  ? N	16.10.1940 - at the board <i>fliegerstaffel 5/196</i> in Kiel, on-board aircraft HSK 8 <i>KORMORAN</i>. 29.12.1940 - badly damaged due to break-off in the North Atlantic, no longer usable. 19.11.1941 - Total loss during the demolition of the ship off the Australian coast.
196 0023	Ar 196 A 1	-	T3  KH	07.10.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board plane <i>Schlachtschiff GNEISENAU</i> 04.11.1939 - East Bornholm, destroyed 50%
196 0024	Ar 196 A 1	-	-	Whereabouts unknown.
196 0025	Ar 196 A 1	-	6W  ? N	12.10.1939 - at the on-board squadron 5/196 in Kiel, on-board aircraft HSK 1 <i>ORION</i>. 09.01.1940 - Holtenau, starting break at the attempt on the HSK 1 <i>ORION</i>, 80%.
196 0026	Ar 196 A 1	-	T3  EH	01.09.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, on-board aircraft <i>Schlachtschiff SCHARNHORST</i> 04.11.1939 - At Seelandung stabilizer, 7% 23.11.1939 - Flight unclear, damaged by heavy artillery pressure, 25% 29.11.1939 - delivery to industry for repair. Further whereabouts unknown.
196 0027	Ar 196 A 1	-	-	Whereabouts unknown.
196 0028	Ar 196 A 1	BB  PM	6W  ? N	00.11.1939 - at the on-board squadron 5/196 in Kiel, airborne HSK 4 <i>THOR</i> (1st patrol). 21.11.1942 - reported at the air service command 64 in Kiel 07.01.1943 - Kiel Fjord, burning crashed, 100%
196 0029	Ar 196 A 1	BB  PN	6W  ? N	- November 11, 1939 - at the boarding squadron 5/196 in Kiel, on-board aircraft HSK 3 <i>WIDDER</i>. 24.06.1940 - When loading the engine did not work. 12.12.1940 - Disembarked from the Brest-Süd Seefliegerhorst. 12.11.1942 - reported at the air service command 64 in Kiel 30.11.1942 - Kiel-Holtenau, crash landing at sea, rollover. 30% 30.05.1944 - reported at the I. / Fliegerziel Squadron 1 in Dievenow. Further whereabouts unknown.
196 0030	Ar 196 A 1	SD  BS	T3  ? H 6W  ? N	23.09.1939 - at the board <i>fliegerstaffel 1/196</i> in Wilhelmshaven, airborne battleship <i>ADMIRAL SCHEER</i>. 09.12.1939 - damaged on board, 20% 24.06.1940 - Transfer from Ribnitz to Travemünde to E-Stelle See. 28.06.1940 - at the on-board squadron 5/196 in Kiel, on-board aircraft HSK 7 <i>KOMET</i>. 02.10.1940 - Silent ocean, starting break, salvaged and exploited, 100%
196 0031	Ar 196 A 1	-	-	Whereabouts unknown.

Part II: Ar 196 series A 2 and A 4

Part III: Ar 196 Series A 3

Part IV: Ar 196 Series A 5 plus production at SNCASO and FOKKER

Sources:

Literature: Eagle over Lake of Christ King; German Lufrüstung 1933 - 1945 from Nowarra; Seaplanes - flying boats, amphibians, float planes by HJ Becker; German aircraft role Part I of Karl Ries; Arsenal No. 126; The sea carriers of the German Luftwaffe (1941 - 1944); History of the E-Stelle See in 3 volumes

Documents: KTB (War Diary) of the General of the Air Force at the Commander in Chief of the Kriegsmarine / Oberquartiermeister; various photo documents; Loss lists of the flying formations (RL 2 III / 1173 - 1198); Loss list of schools and other associations (RL 2 III / 769 - 783); Diverse KTBs of associations such as airplanes 1.196 and 5.196; Boarding plane group 196; Airborne commandos on warships, KTBs of warships of the German Navy, etc.;

From private archives and collections by Karl Kössler, Horst Thürlings, Axel Urbanke, Axel Kleckers, Christian Grams, Hans Mcilveen, Christ King, Urs Heßling

Techn. Regulations inter alia: D. (Luft) T.2196 Ar. 196 A3 / A5, part 0-10; L.Dv. T.2196 Ar. 196 A4 fl; L.Dv. 391 part 1-10, Ar. 196 A and B; L.Dv. No. 844a Ar. plus several other regulations

Website: www.adl-luftfahrtshistorik.de; www.luftwaffe-research-group.org; www.wlb-stuttgart.de; www.forum-marinearchiv.de; www.Luftwaffe-zur-see.de;

[Back to the plant number lists>](#)

