THE ROHRBACH ARCHIVE – Update 1.0

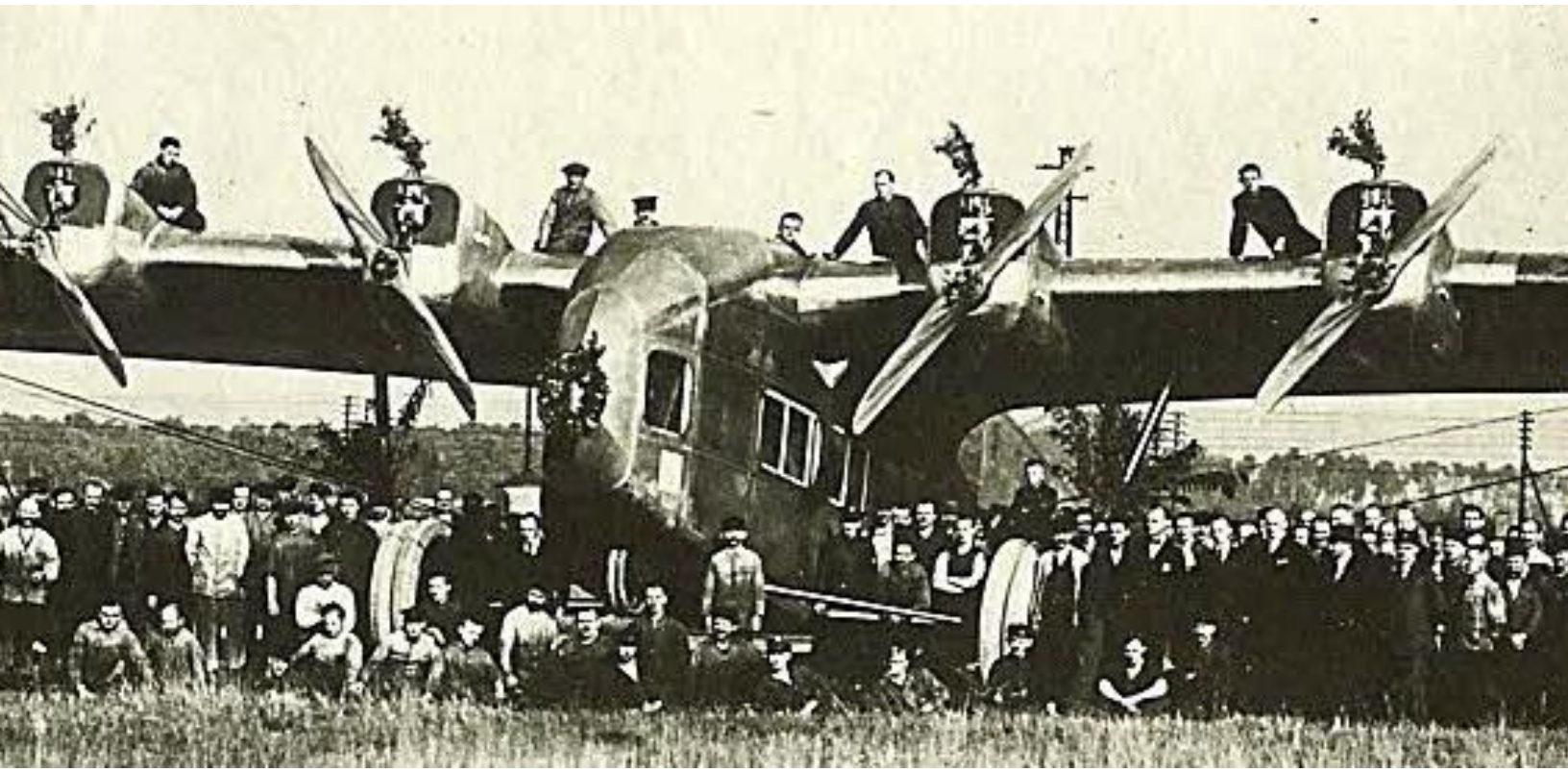
A valuable contribution was received from Mr. Didier Campion, Belgium, who recently acquired an album with genuine black and white photographs of Rohrbach aircraft. He was so generous to let me share in his find.
Among the pictures, the regular old fashioned snapshot reproduced on the next page, that shows Adolf Rohrbach's first and most famous airplane, the "Staaken 4/20". The following description is in Rohrbach's own words, translated by NACA from the "Zeitschrift des Vereines Deutscher Ingenieure", June 4, 1921:

"In the period from May, 1919 to September, 1920, the Zeppelin Works at Staaken [Berlin] built a swift traffic airplane, designed by myself, equipped with four 260 hp Maybach engines. Its empty weight is 6072 kg, which could be considerably reduced in building another on the basis of present experience. With a total weight of 8500 kg, the airplane has the exceptionally high wing loading of 80 kg/m2, while the load per hp is 8.5 kg. The speed of the airplane is 211 km/h at 100 rpm below the full rpm of the engine.

The four identical engine units are entirely independent of each other and completely separated from the central fuselage occupied by the passengers and crew, The engines rest on strong duraluminum brackets at the front edge of the wings, each engine driving a propeller directly, whereby the high speed insures satisfactory efficiency. On the carburetor side of each engine there is a space in the engine nacelle from which a mechanic, fully protected from the slip stream, can watch the engine and remedy slight troubles...

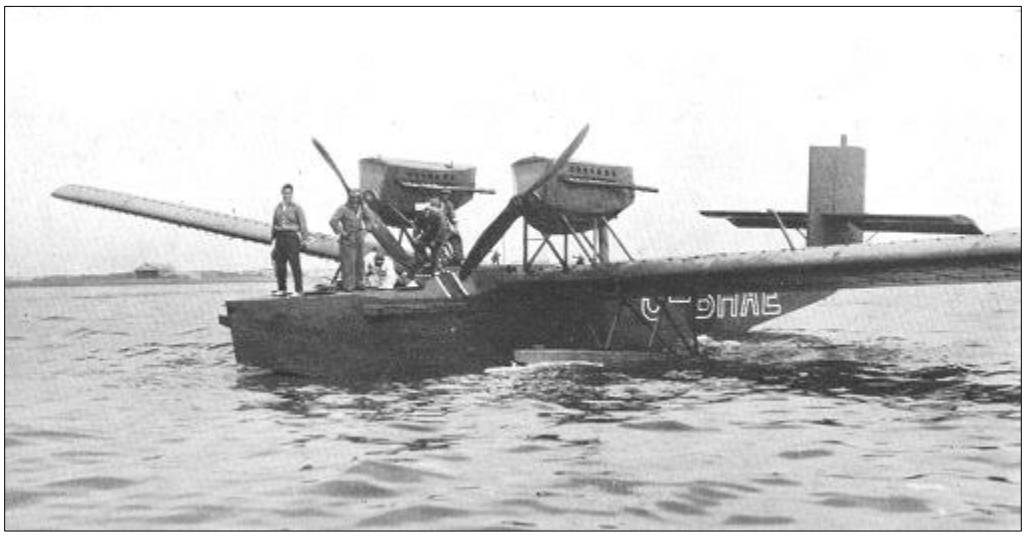
The engines can be reached during flight through a passageway inside the wing. Inside this passageway are the aileron- and carburetor controls, as are also the gasoline pipes. It is amply ventilated and warmed by the heat from the engines and facilitates communication between the members of the crew, since the noise of the engines is greatly deadened."

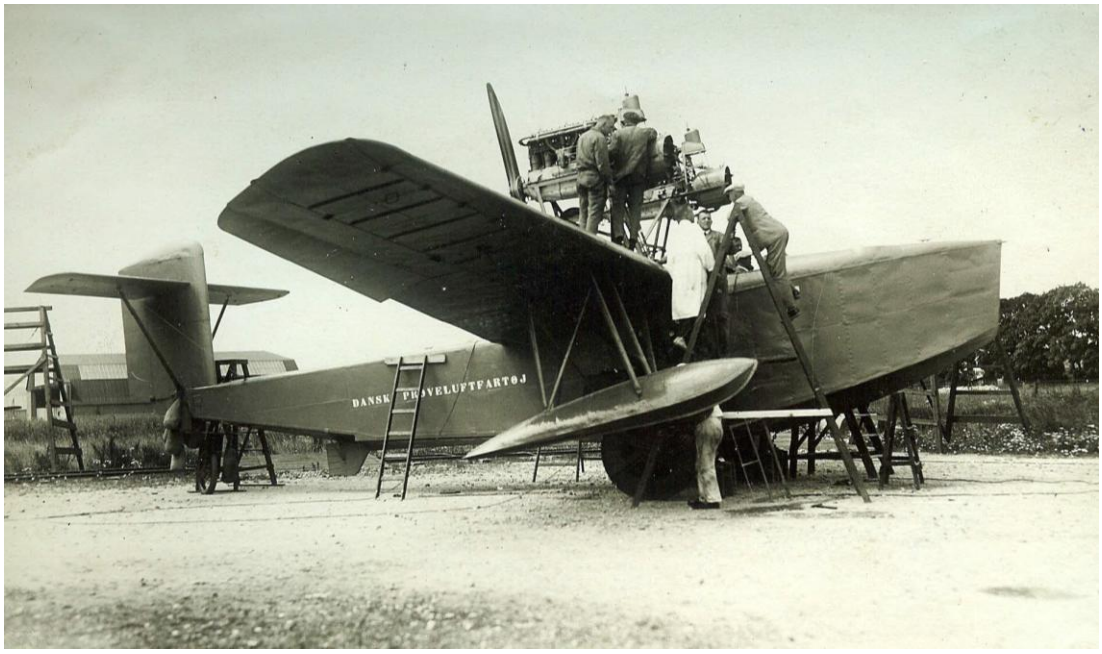
The photograph in the album is one that has been reproduced many times since it was taken and that may be found in many publications about Rohrbach. Maybe Mr. Campion now really owns the original! The famous picture depicts a proud group of people who, no doubt, all felt a special connection with this fascinating airplane. [I did try and enlarge some of the faces in the group hoping to discover the great airplane designer himself. So far I have failed.]
Noteworthy is also Rohrbach's comment about the accessibility of the engines during flight. In the Twenties this was a point of great concern during long distance flights. For this stationary posing there are four people stationed next to the (running) engines on top of the wing; did they have a bucket of sand ready? The man on top in central position is sitting in the open cockpit.

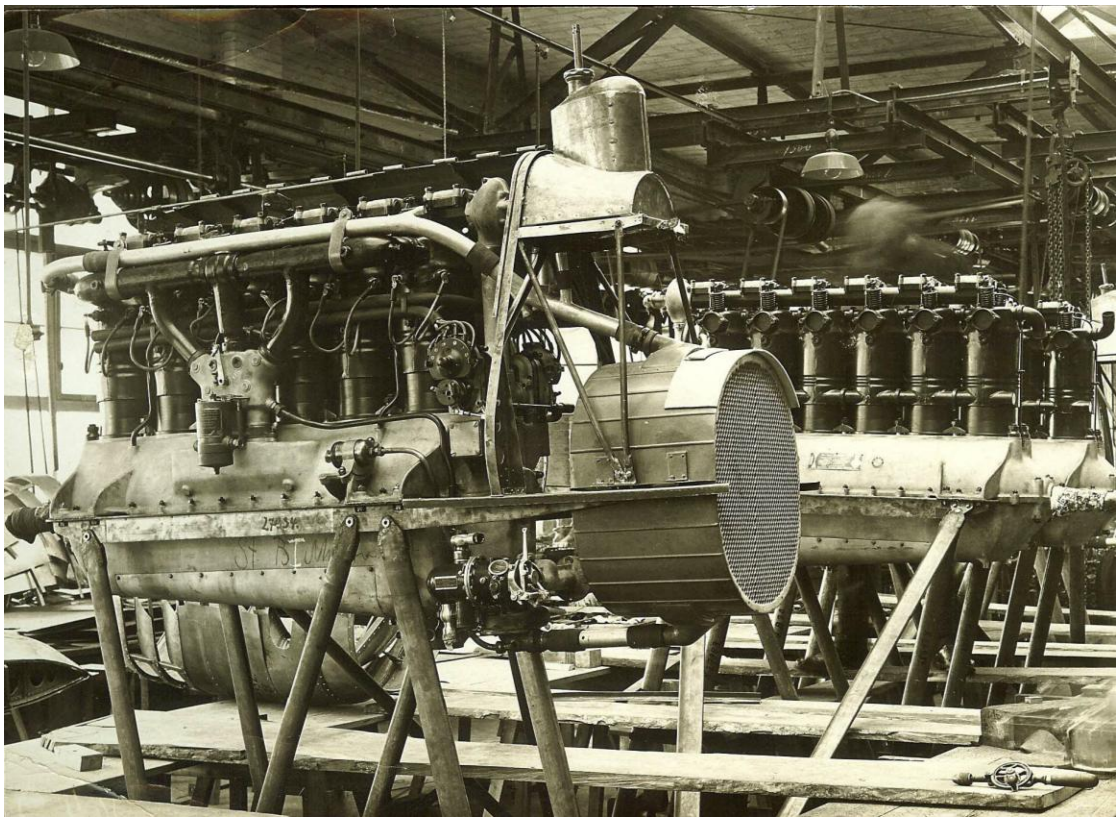


THE ROHRBACH ARCHIVE – Update 2.0

In the early ninteentwenties, the ROHRBACH METALL-FLUGZEUGBAU GmbH was formed, with office in Berlin and a factory at Kastrup, near Copenhagen Denmark.
Flying boats were designed in Berlin and built in Kastrup for the Japanese, Turkish and British navies.







Rohrbach Ro-VII Robbe I, probably at Kastrup, Denmark foto: collection Didier Campion

BMW iva 320pk engine installation (pusher propeller; note cooler up front)

At Kastrup also a single-engine fighter airplane was built for the Turkish Airforce,
the Ro-IX Rofix.

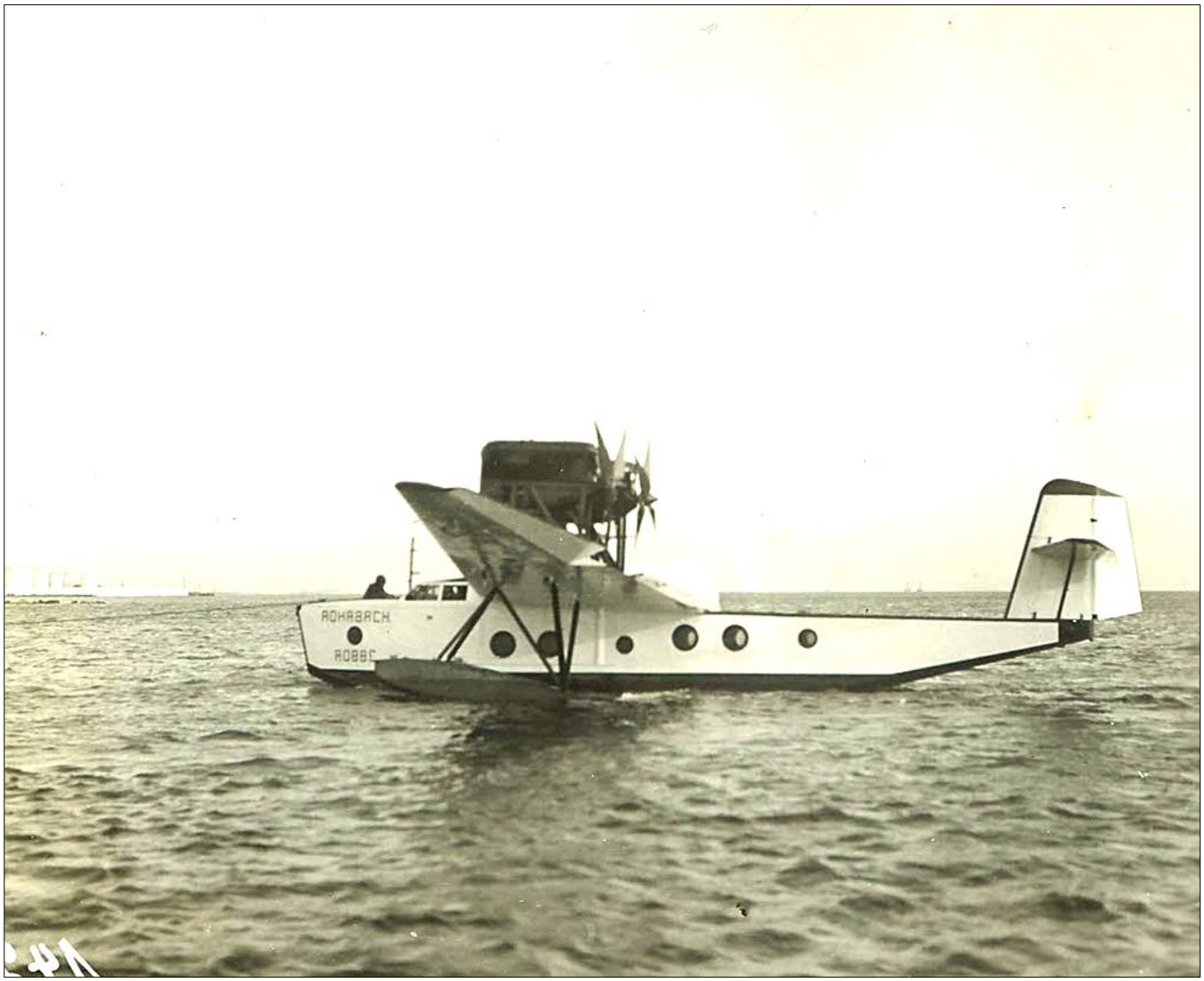
According to some sources AdolfRohrbach based the design on earlier work he did while in Japan.

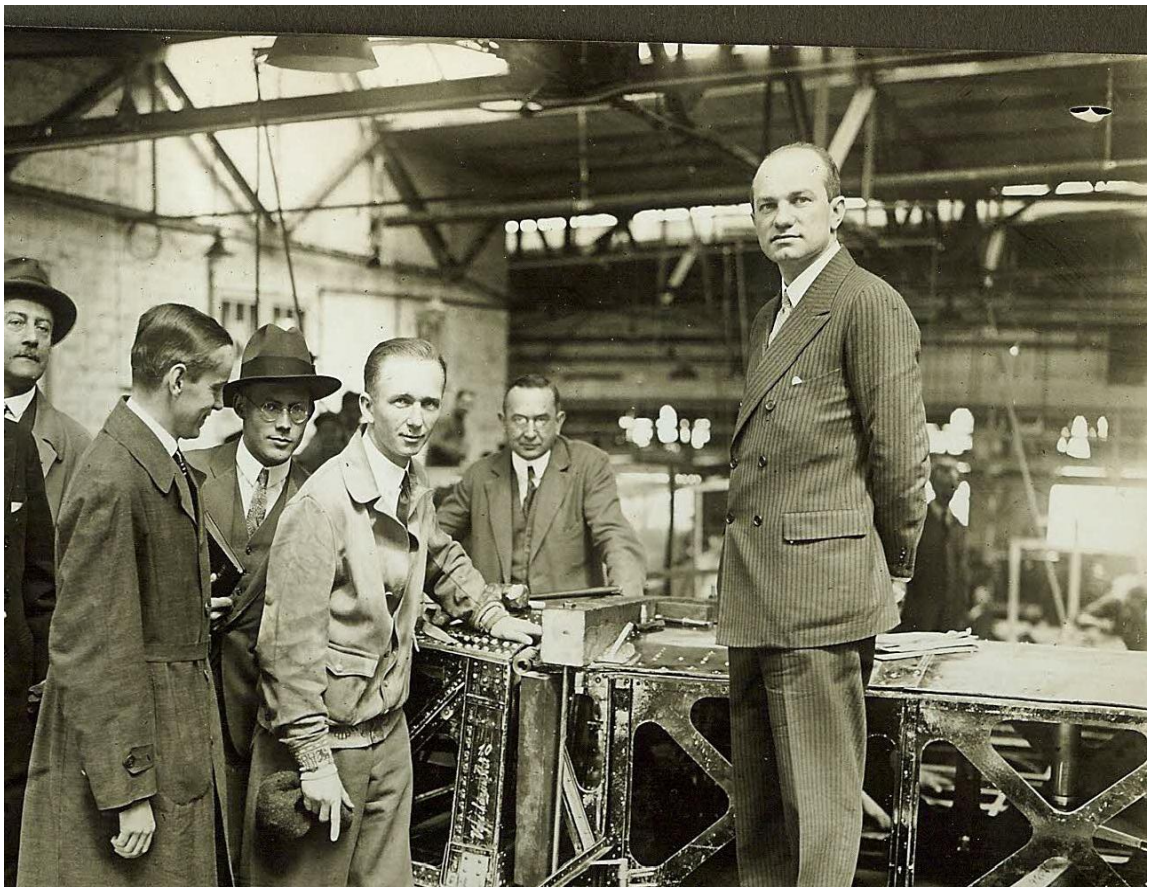
Unfortunately, both prototypes crashed during tests; the last accident killed Paul Bäumer, famous German WWI Ace and airplane builder (1927).

Rare picture of the Rohrbach Ro-VIIb Robbe II

In a French RMF brochure of October 1928 (see link on this website), it is explained that this particular airplane was built to test out the very pointed wing design that was to be used on the Ro Romar.

Also, Kurt Tank and Ernst Udet had the intention to make an Atlantic crossing with this flying boat. However, during a trial attempt in the second part of 1927, serious engine trouble developed and the plane was broken up. (photographs from the collection of Didier





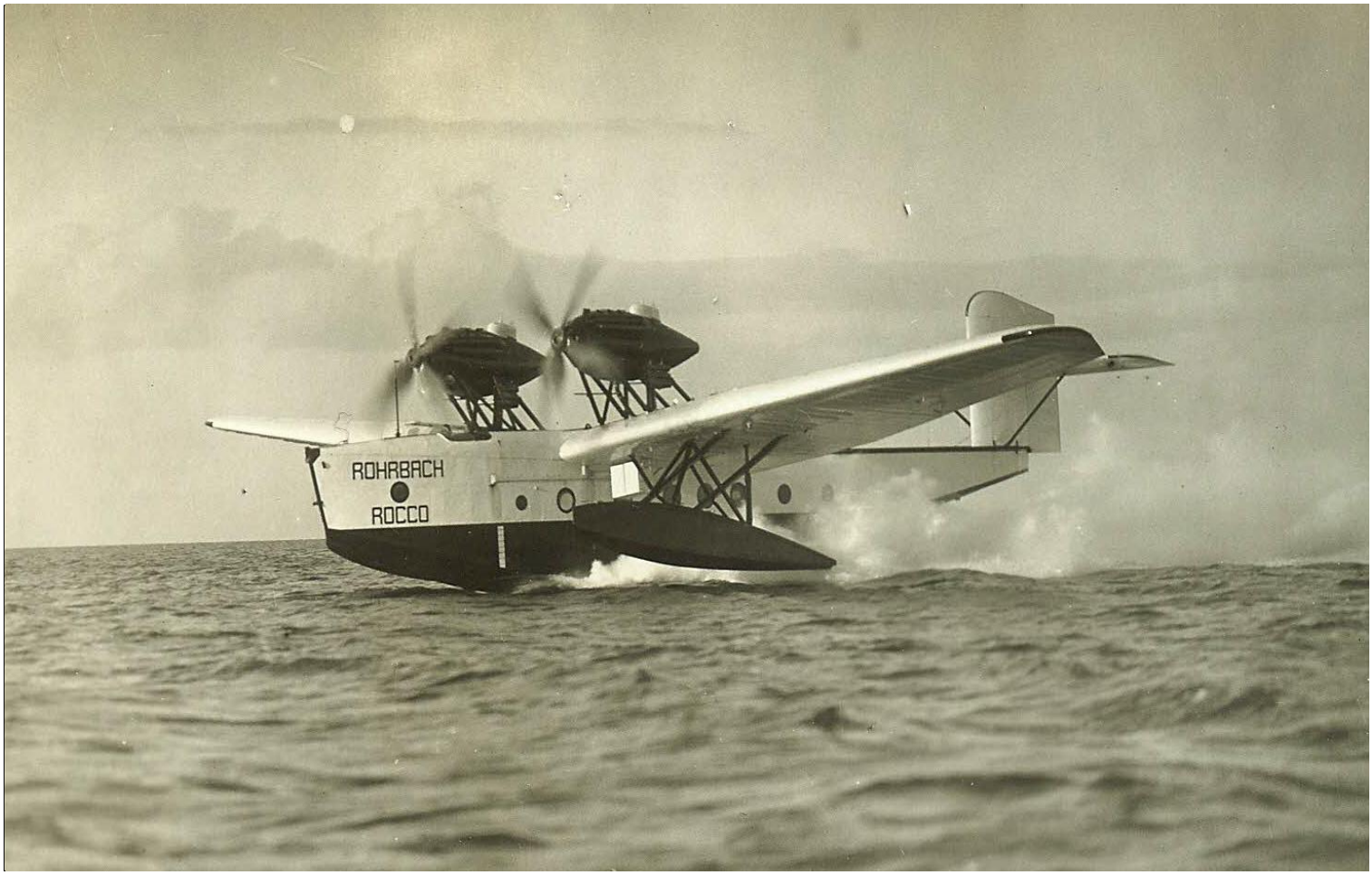
On June 6, 1927, the Americans *Charles Levine* and *Clarence Chamberlin* landed near Berlin after a direct 43 hour flight from New York in a small *Bellanca* aircraft. (They outdid Charles Lindbergh by flying a longer distance with a heavier payload)

The Germans gave Levine and Chamberlin a tumultuous welcome. During the days that followed, they visited the Rohrbach factory, where they were shown the *Rocco* all-metal flying boat.
From left to right: unknown person; in coat: *Levine;* unknown; facing camera: C*hamberlin;* unknown; standing full length: *Dipl.Ing. Koch*, Chief Designer of RMF. Behind Dipl.Ing. Koch: a box girder of classic Rohrbach design.

foto: collection Didier Ca*m*pion

The hull of the disassembled flying boat *Rocco* taken through the streets of Berlin-Wedding to a barge in a nearby canal, from where it was transported to Kiel. There the airplane would be assembled and tested at sea.

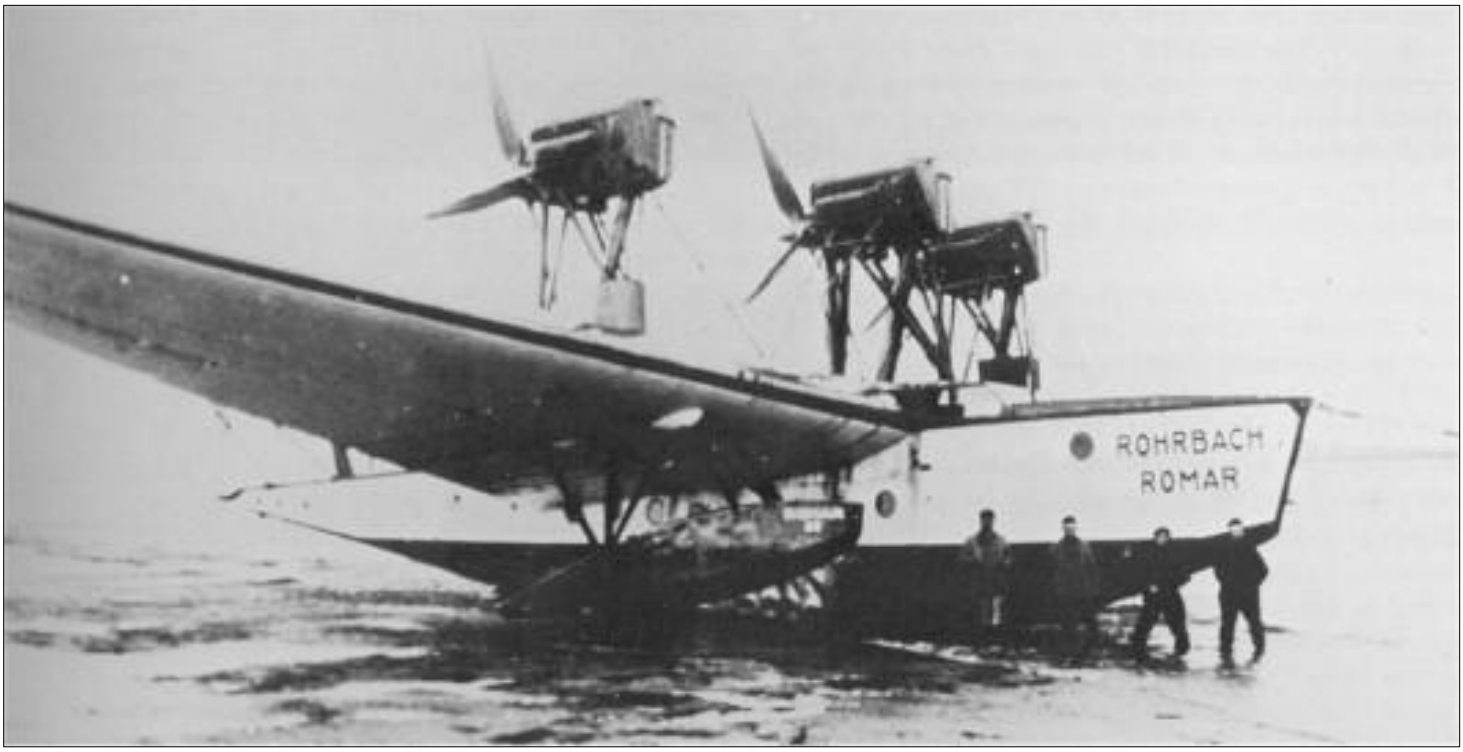
The Rohrbach Ro-V Rocco being put into one of its elements…
(note the large four-bladed propellors) (photo collection Didier Campion)



The Rohrbach Ro-V Rocco ‘on the step’ while taking off.
Note the open cockpit in front of the engines.
(photograph from the collection of Didier Campion)

In 1926 Deutsche Luft Hansa places a first order with RMF for six Ro VIII Roland passenger (land) planes. The affiliated Spanish company Iberia also used this successful transport.

A repeat order is placed in 1928.



In 1928 RMF receives an order from Deutsche Luft Hansa for three trans-Atlantic flying boats.

Rohrbach's design is called Ro-X Romar. The specs call for a capability of covering 4000 km with 12 passengers (1080 kg) and a guaranteed seaworthiness to winds of 5 Beaufort while landed at open sea. The initial flying tests and sea trials are very successful and the RMF Company launches a publicity campaign in Flight magazine and at the Paris Salon d'Aviation.

While Adolf Rohrbach is campaigning in the United States, a series of major mishaps occur at home in 1929. The fate of the RMF factory is sealed by the Wall Street stock market crash of October 29 in the same year.

From the (German) table accompanying the French publicity brochure it becomes clear that the initial specs of Luft Hansa could not have been met anyway. Although the flying boat had a surprisingly light own weight, it could not reach the required full range of 4000 km when fully loaded (1080 kg). Also when it did take off at full weight, its performance would be very slow: it would take 9 minutes to reach a height of 1000 meters (see line 23, table page 16).

Seaworthiness Test of "Rohrbach-Romar."

Seaworthiness !

Seaworthiness will always be one of the most difficult conditions to be met by flying-boat constructors.

For quite a couple of years the Aircraft Industry has been unable to guarantee their customers any reasonable figures of seaworthiness for flying-boats.

The Rohrbach Metall-Flugzeugbau G.m.b.H. was the first firm, ever since the construction of flying-boats was started by the industry all over the world, to guarantee, for the three "Rohrbach-Romar" ships then under construction, seaworthiness in a sea up to force 5 (Beaufort).

On December 11th and 13th, 1928, the "Rohrbach-Romar" underwent her seaworthiness trials, under supervision and to the entire satisfaction of the "Deutsche Versuchsanstalt für Luftfahrt" and "Deutsche Lufthansa A.G.," who satisfied themselves of the excellent manœuvrability of the ship in rough waves.

A model of the "Rohrbach-Romar," 5 metres in size, will be shown at the "International Aero Exhibition, Olympia," at London, from July 16th to August 1st, 1929, so that all details can be easily inspected and studied.

ROHRBACH METALL-FLUGZEUGBAU G.m.b.H., BERLIN, N.65.

Daten der heutigen Rohrbach-Typen

Bezeichnung	Dim.	Landflugzeug: „Rohrbach-Roland"		Flugboote: „Rohrbach-Rocco"		„Rohrbach-Romar"		„Rohrbach-Rostra"	
		Verkehr	Fracht	Verkehr	Fracht	Verkehr	Fracht	Verkehr	Fracht
Triebwerk:									
1. Motoren		3 BMW Va		2 Rolls-Royce „Condor IIIa"		3 BMW VI Al.Z.U		2 Gnôme et Rhône „Jupiter VI"	
2. Motorendauerleistung	PS	960/1080		1300		1650/2160		900/1220	
3. Tankinhalte	l	1350		3800		7860		4600	
Flugwerk:									
4. Spannweite	m	26,0		26,0		36,9		26,9	
5. Länge	m	16,4		19,3		22,0		15,6	
6. Höhe	m	4,5		6,7		8,5		6,3	
7. Fläche	m^2	88,0		94,0		170,0		77,0	
8. Besatzung	Anzahl	2		3		4		3	
9. Fluggäste	Anzahl	10	—	10	—	12	—	5	—
Tragfähigkeit:									
10. Ausrüstung	kg	770	390	1000	700	1500	1100	800	600
11. Besatzung	kg	170	170	250	250	340	340	265	265
12. Betriebsstoff	kg	1180	1180	2100	1800	6130	6760	2500	3660
13. Fluggäste und Gepäck	kg	900	—	900	—	1080	—	450	—
14. Fracht	kg	200	2500	—	1500	—	850	—	400
15. Sonstiges	kg	50	30	40	40	50	50	45	35
16. Gesamt-Tragfähigkeit	kg	3270	4270	4290	4290	9100	9100	4060	4960
17. Reingewicht	kg	4130	4130	6210	6210	9900	9900	4340	4540
18. D. V. L.-zulässiges Fluggewicht	kg	7400	8400	10500	10500	19000	19000	8400	9500
Reichweiten:									
19. mit obigem (12) Betriebsstoff									
a) Strecke	km	1270	1210	1600	1270	3630	4000	2300	3500
b) Dauer	Std.	9,7	8,6	10,0	7,7	24,0	26,5	13,8	21,0
20. mit vollen Tanks									
a) Strecke	km	1270	1210	2510	2510	4000	4000	3900	3850
b) Dauer	Std.	9,7	8,6	15,7	15,7	26,5	26,5	23,5	23,0
Leistungen:									
m. Fluggewicht von:	kg	6500	8400	9700	10500	14900	19000	8000	9500
21. Höchstgeschwindigkeit	km/Std.	215	210	212	210	217	208	213	208
22. Reisegeschwindigkeit	km/Std.	177	163	196	192	162	—	158	—
23. Steigzeit von 0—1000 m	Min.	3,5	8,3	5,4	7,1	4,4	8,6	4,6	7,3
24. Gipfelhöhe absolut	m	5350	3360	3360	2730	4550	2800	4150	3000
Kennblatt	Nr.	208		196		219		222	

Alle Leistungszahlen werden mit ± 5% Toleranz, jedoch für Steigzeiten mit ± 12% Toleranz garantiert.

Aufstellung Nr. 22 1. X. 28. 7000

For my research I bought many of my historical aviation books and documents at
LINDBERGH AVIATION.
I found Flugkapitän Peter Klant very knowledgeable and helpful; providing fast service, also overseas.

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Hier geht's direkt zum Antiquariat Lindbergh,
zu Ihrer Quelle für alte und seltene Luftfahrtbücher:

www.Lindbergh-aviation.de

This is the direct link to Antiquariat Lindbergh,
your source for rare and old aviation books.