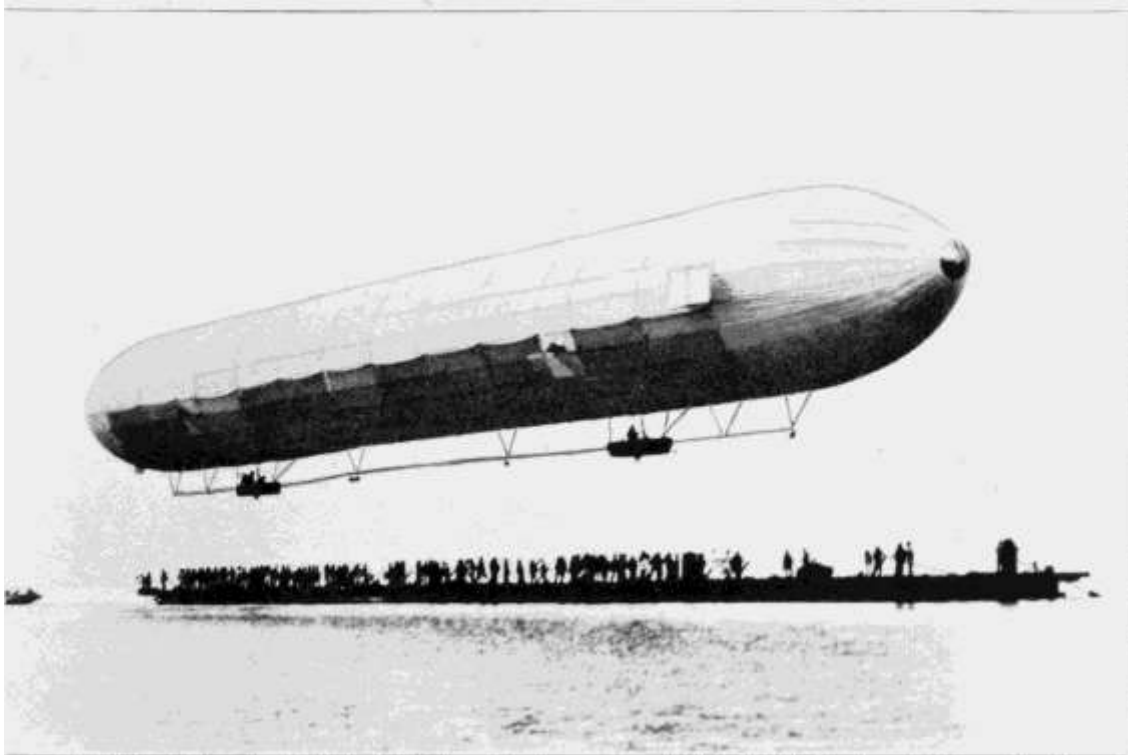# The Zeppelin LZ-1

The Zeppelin LZ-1 was the first successful rigid airship to fly. Its first flight was on July 2, 1900. The flight was launched from a floating hangar on Lake Constance (Bodensee), near Friedrichshafen in Southern Germany.

The Zeppelin LZ-1 on its maiden flight over a barge full of observers.

The LZ-1 (Luftschiff Zeppelin #1), was designed and built by Graf von Zeppelin. The airships specifications were:

- Length: 420 ft (128 m)
- Diameter: 38 ft (11.65 m)
- Volume: 413,000 cu ft (11,700 m^3) (of hydrogen - in 17 cells)
- Power plants: 2 Daimler piston engines, 14 hp (10.4 kW) each driving 2 propellers
- Total weight: 14,330 tons (13,000 metric tons)
- Lift capacity: 660 lbs (300 kg) approximately.

Passengers were carried in two aluminum gondolas, approximately 19 ft (6 m) long, suspended forward and aft. Under the hull there was a weight of about 285 lbs (130 kg) which could slide forward and aft to control the airship's attitude.
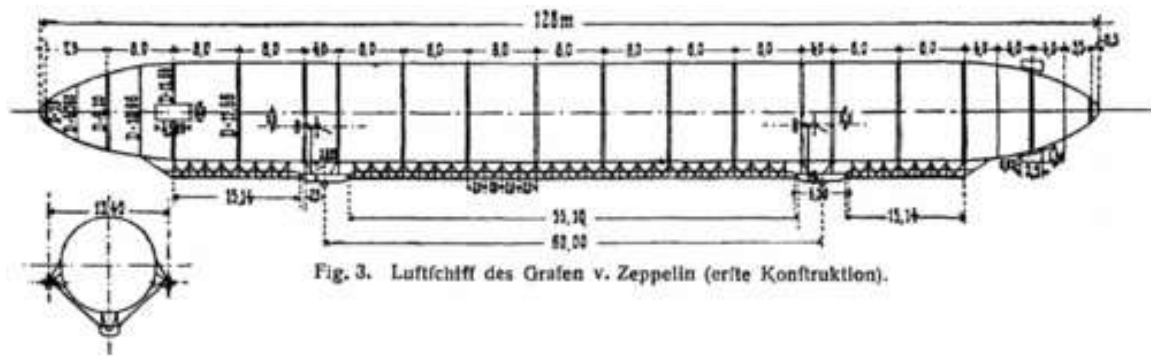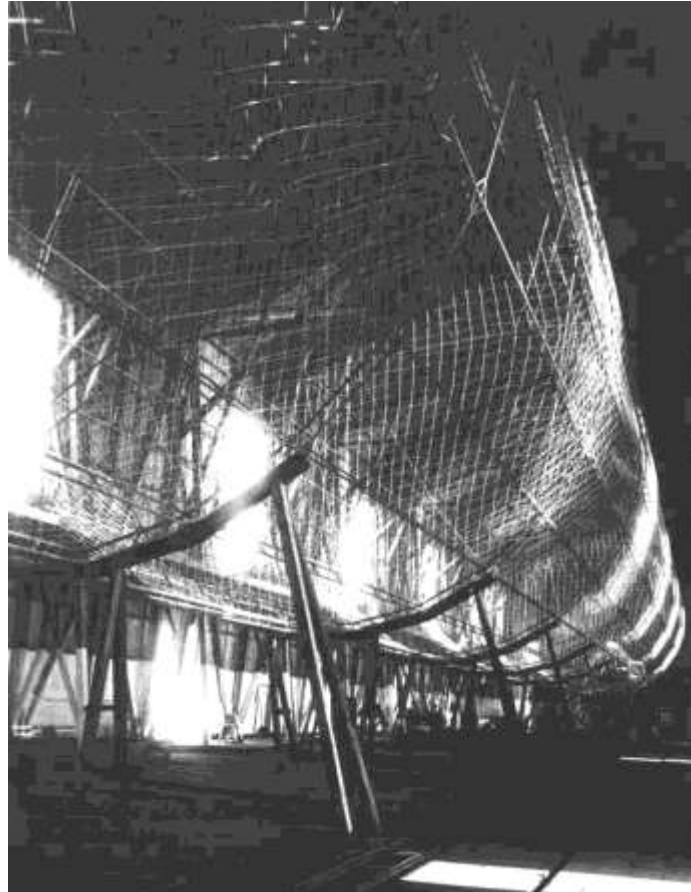
Diagram of the LZ-1

There were 5 passengers on the initial flight which lasted 18 minutes and covered about 3.7 miles (6 km), attaining an altitude of about 1300 ft (400 m). The LZ-1 was launched from a floating hangar near Friedrichshafen. The hangar could rotate to allow the airship to be moved in and out with the hangar aligned into the wind. The flight was cut short when the winch used to move the weight forward and aft broke, forcing a crash landing on the lake.

The Luftschiff Zeppelin 1 (LZ-1) in its floating hangar on Lake Constance (Bodensee), near Friedrichshafen

After repairs the LZ-1 made another two flights demonstrating its capabilities. It broke the existing speed record held by the French airship *La France* (13.4 mph – 6 m/s) by fifty percent, 6.7 mph (3 m/s).

In spite of this, potential investors did not back the project, forcing Graf von Zeppelin to dismantle the airship and sell it for scrap. He also sold the tools and liquidated his company.

Rigid frame for the LZ-1 during construction