Detailed Technical Drawings of the Hindenburg D-LZ129

A set of technical drawings of the passenger airship Hindenburg

Scale is 1/200 except as otherwise noted

Drawings by David Fowler

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Rear Elevation
“B” Deck Passenger Cabins (Added 1937)
**Control Gondola**

- Elevator Wheel
- Ballast Board
- Navigator’s Station
- Rudder Wheel
- Gas Cell Board
- Engine Telegraph
- Ladder to Hull
- Landing Rail
- Pneumatic Landing Wheel
- Ring 203

**Engine Car (Forward)**

- 4 Engine Cars
  - Forward Engine Cars mounted 4° outward from ship’s axis
  - Aft Engine Cars mounted at 3° outward from ship’s axis

**Engine Specifications:**
- Daimler Benz LOF 6 diesel
  - V16, 4 valve per cylinder
  - 770 kW (1050 hp) maximum at 1500 rpm
  - 690 kW (940 hp) cruising at 1350 rpm
  - 225 g/kWh (0.37 lbs./hp/h) fuel consumption (cruising)

- Propeller diameter: 6.0 meters (19.7 feet)
- Propeller rpm (cruising): 625 rpm
- Maximum air speed: 137 kph (85 mph)
- Cruising air speed: 120 kph (75 mph)
Engine specifications:
- Daimler-Benz LOF 6 diesel
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- 770 kW (1050 hp) maximum at 1500 rpm
- 690 kW (940 hp) cruising at 1350 rpm
- 225 g/kWh (0.37 lbs./hp/h) fuel consumption (cruising)

Two 2-blade propellers fixed together to create one 4-blade propeller
- Propeller diameter: 6.0 meters (19.7 feet)
- Propeller maximum tip velocity: 848 kph (527 mph)
- Propeller rpm (cruising): 675 rpm
- Maximum air speed: 137 kph (85 mph)
- Cruising air speed: 120 kph (75 mph)
Main Rings

- Hull Fabric Covering
- Tail Fin Cruciform Structure
- Bracing Cable (40,000 pound)

Feet 0 10 20 30 40 50
Meters 0 5 10 15
**Main Rings**

- Gas Vent
- Bulkhead Bracing Wires
- Ventilation Shaft
- Maneuvering Valve
- Pressure Relief Valve
- Access Ways to Engine Cars
- "Stub" Keel for Engine Car Access
- Hull Fabric Covering
- Axial Corridor
- Keel Corridor

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**Access Ways to Engine Cars**

- Engine Car 1
- Engine Car 2

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**The Hindenburg**

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Main Rings

- Engine Car 3
- Engine Car 4
- Keel Corridor
- Axial Corridor
- Bulkhead Bracing Wires
- Hull Fabric Covering
- "Stub" Keel for Engine Car Access
- Access Ways to Engine Cars

Feet 0 10 20 30 40 50
Meters 0 5 10 15

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Hull Fabric Covering
Main Rings
Gas Vent
Ventilation Shaft
Pressure Relief Valve
Maneuvering Valve
Keel Corridor
"Stub" Keel for Engine Car Access
Bulkhead Bracing Wires
Axial Corridor
Hull Fabric Covering
Keel Corridor

0 5 10 15
Meters

0 10 20 30 40 50
Feet

156.5
Intermediate Rings

Ring 198 is a typical Intermediate Ring. Intermediate Rings 237 and 241 are 18 sided. Longitudinal girders create 36 apices.

Gas Cell (made from "Goldbeater’s Skin")

Tube through Gas Cell for Axial Corridor

Keel Corridor

Passenger "A" Deck

Passenger "B" Deck

Axial Corridor

Fabric Hull Cover

Hull Fabric Covering

Keel Corridor

Keel Corridor

Feet 0 10 20 30 40 50

Meters 0 5 10 15

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Bow Mooring Area (Detail)
**TAIL STRUCTURE**

Main Ring construction of the Tail Fins is braced through the hull to the opposing Fin by the Tail Fin Cruciform Structure.

Rudder/Elevator Hinge Line (angled 2° forward)

Main Ribs constructed using triangular girders; Intermediate ribs constructed using flat girders.
LOWER TAIL STRUCTURE
(PRE- AND POST-MARCH 1936 MODIFICATION)
The Hindenburg
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Gas Vent
Main Ring
Intermediate Ring
Axial Corridor
"Stub" Keel for Engine Car Access
"Stub" Keel for Engine Car Access
Gas Cell Wire Netting*
Gas Cell Cord Netting*
Circumferential Wires*
Diagonal Shear Wires
Longitudinal Wires*
* wiring and netting extend throughout entire frame, but are omitted in other cells for clarity

Feet
0 10 20 30 40 50
Meters
0 5 10 15

VI  VII  VIII  IX  X  XI
Gas Cell No. 92 107 123.5 140 156.5
Frame No.
Axial Corridor*

* the axial corridor extends the length of the airship, but is omitted for clarity where it would obscure other details
Forward Engine Car (angled 4° outward)

Rear Engine Car (angled 3° outward)

500 kg Cargo Space
500 kg Cargo Spaces

“Stub” Keel for Engine Car Access

Electrical Room
(Two 500hp Diesel Generators)

Search Light

Crew’s Quarters

“Stub” Keel for Engine Car Access

Large Cargo Space 2,500 kg

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