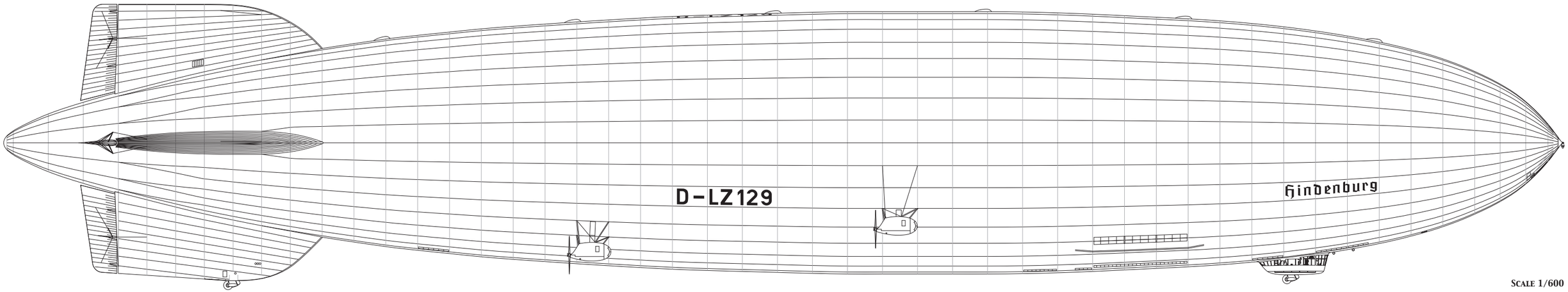
DETAILED TECHNICAL DRAWINGS
OF THE

hindenburg

D-LZ129



SCALE 1/600

A SET OF TECHNICAL DRAWINGS OF THE PASSENGER AIRSHIP HINDENBURG

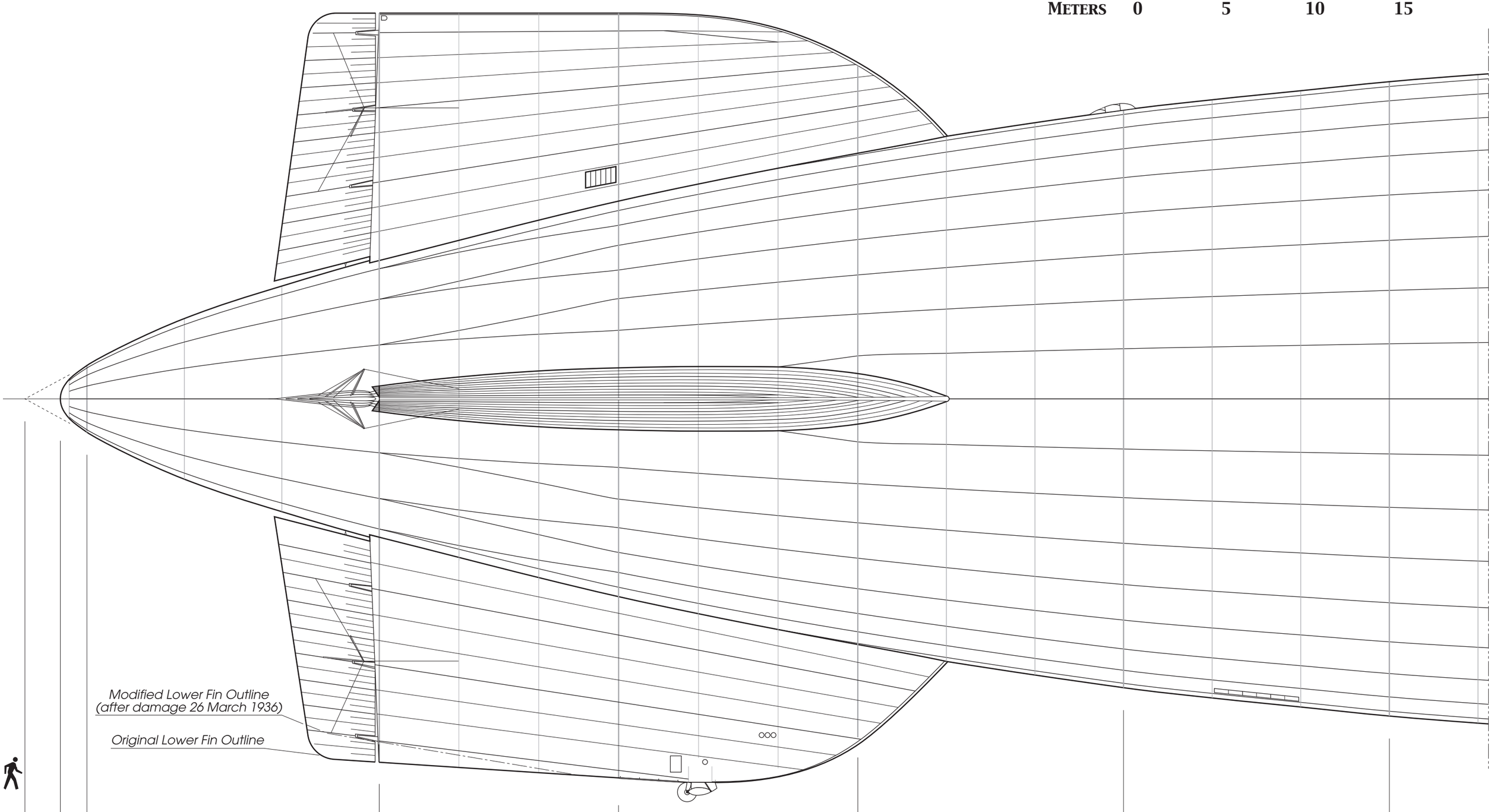
SCALE IS 1/200 EXCEPT AS OTHERWISE NOTED

DRAWINGS BY DAVID FOWLER

20210323

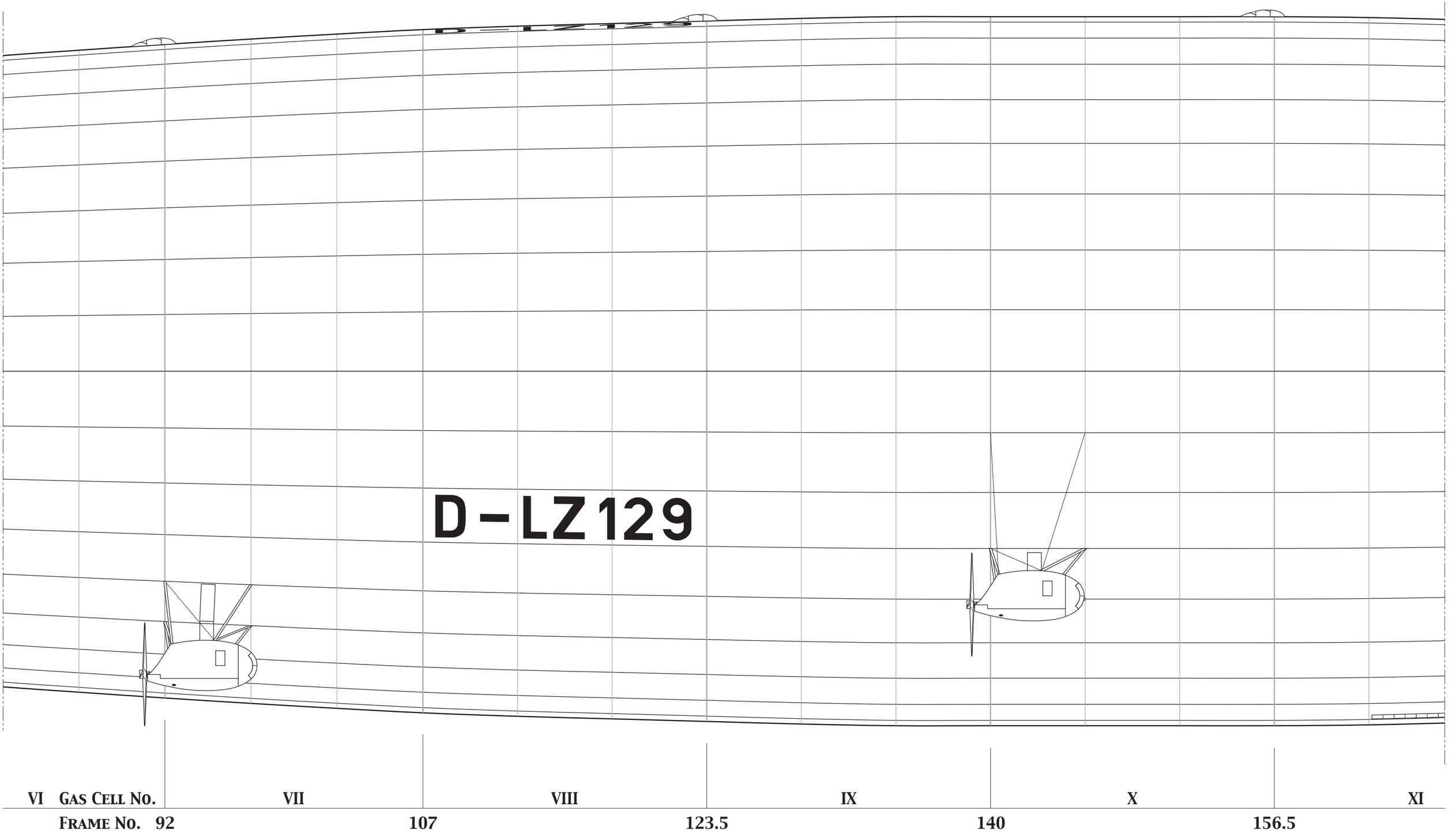
FEET 0 10 20 30 40 50

METERS 0 5 10 15



FEET 0 10 20 30 40 50

METERS 0 5 10 15

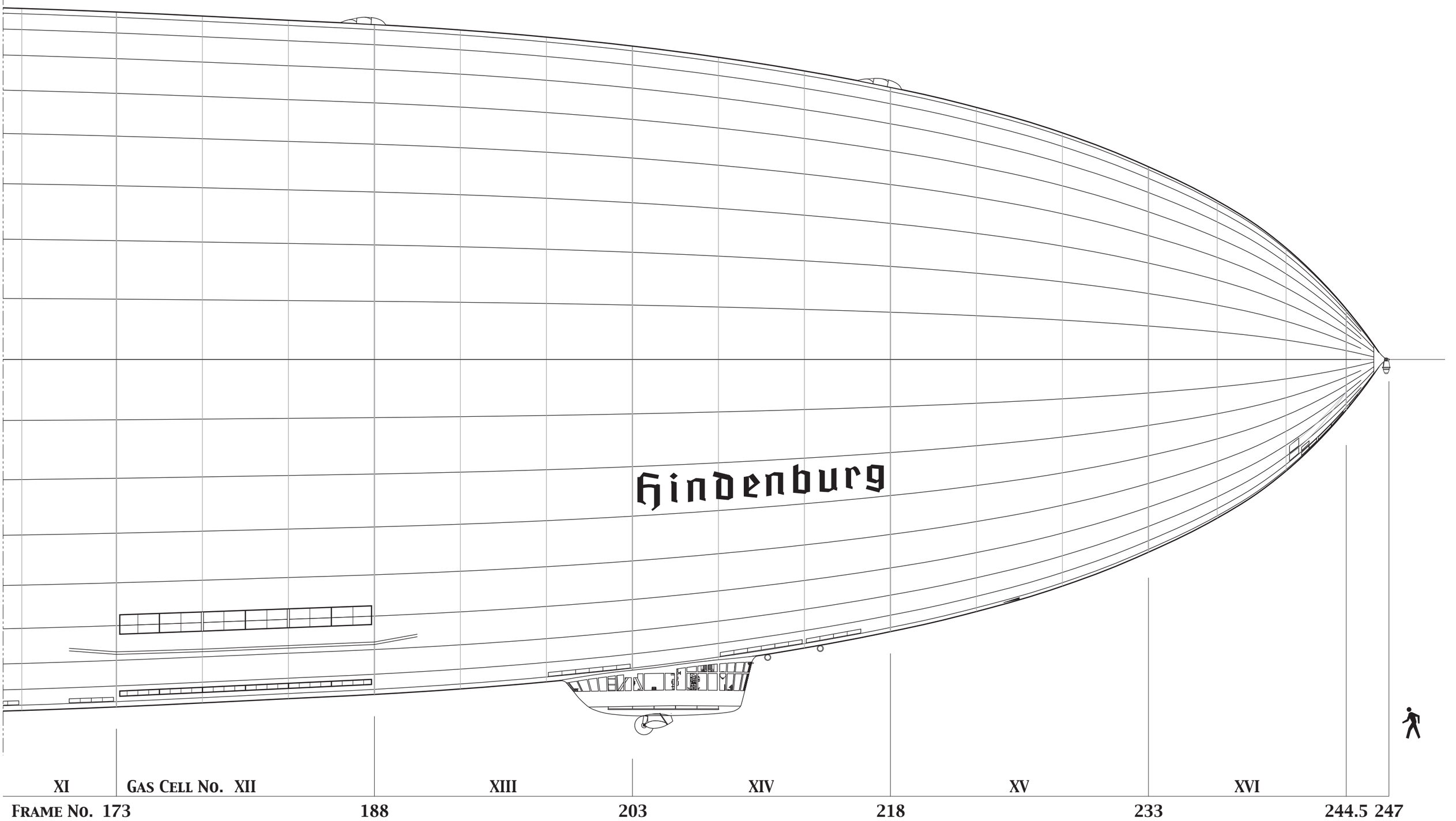


VI GAS CELL NO. VII VIII IX X XI

FRAME NO. 92 107 123.5 140 156.5

FEET 0 10 20 30 40 50

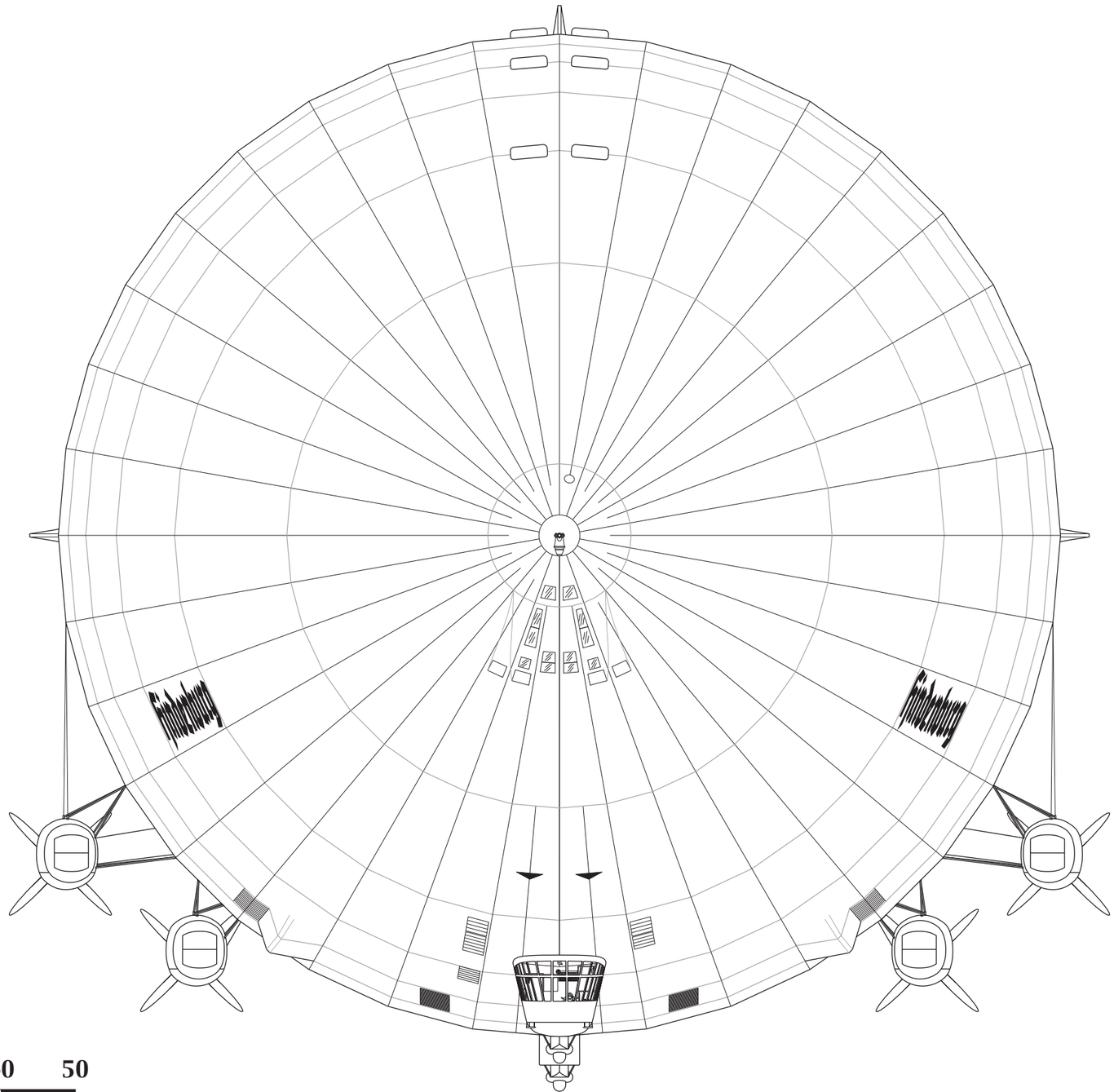
METERS 0 5 10 15



XI | GAS CELL NO. XII | XIII | XIV | XV | XVI

FRAME NO. 173 188 203 218 233 244.5 247

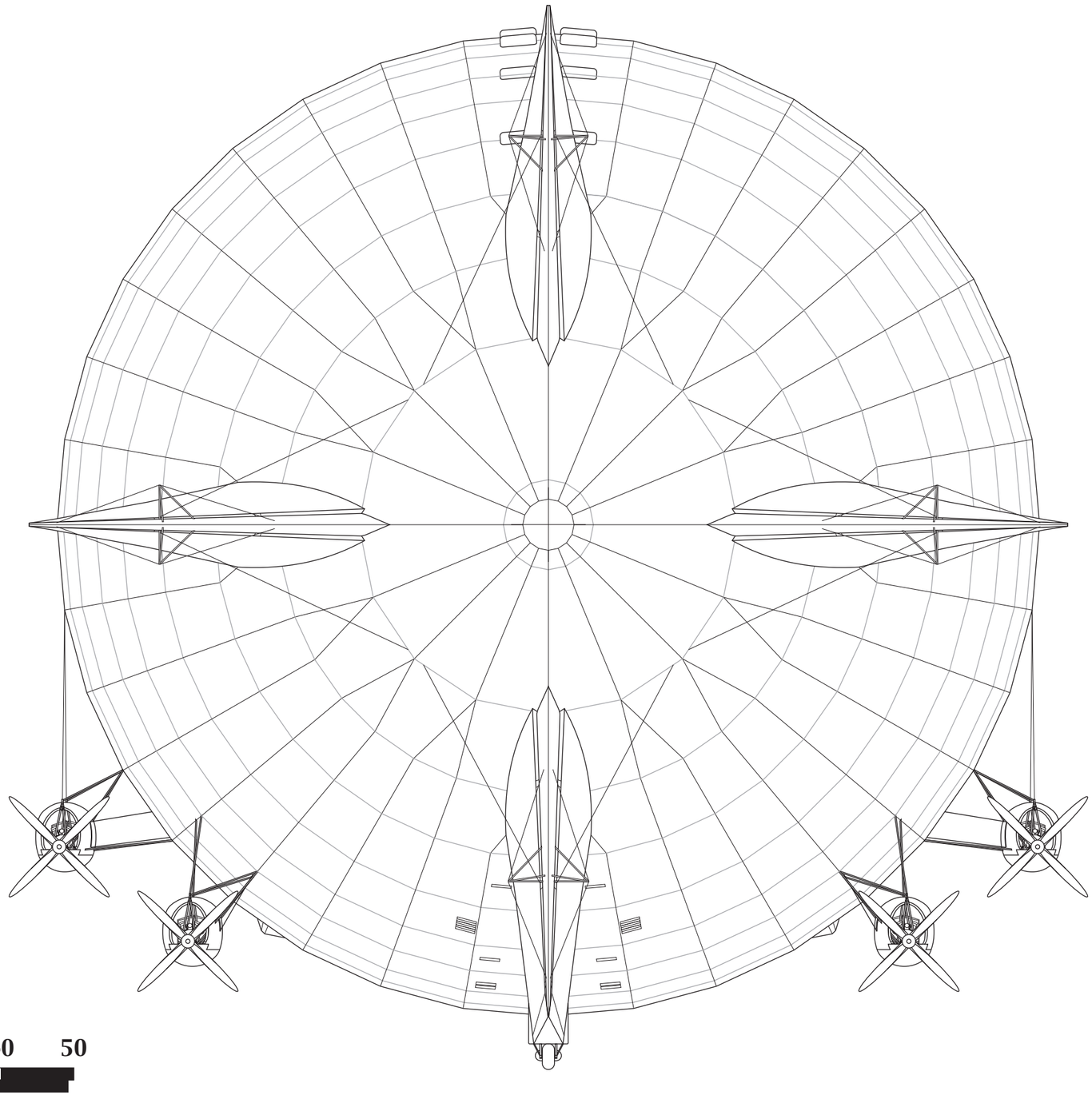
Front Elevation

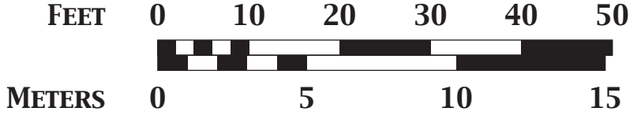


Feet 0 10 20 30 40 50

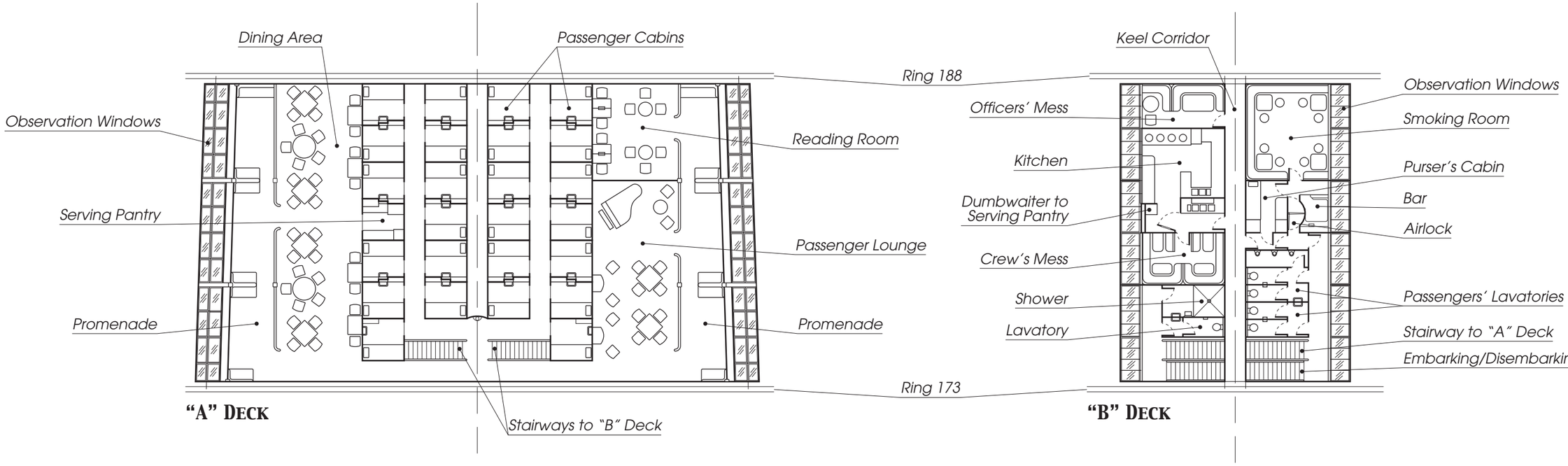
Meters 0 5 10 15

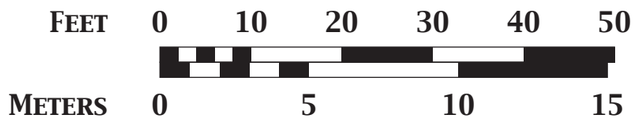
Rear Elevation



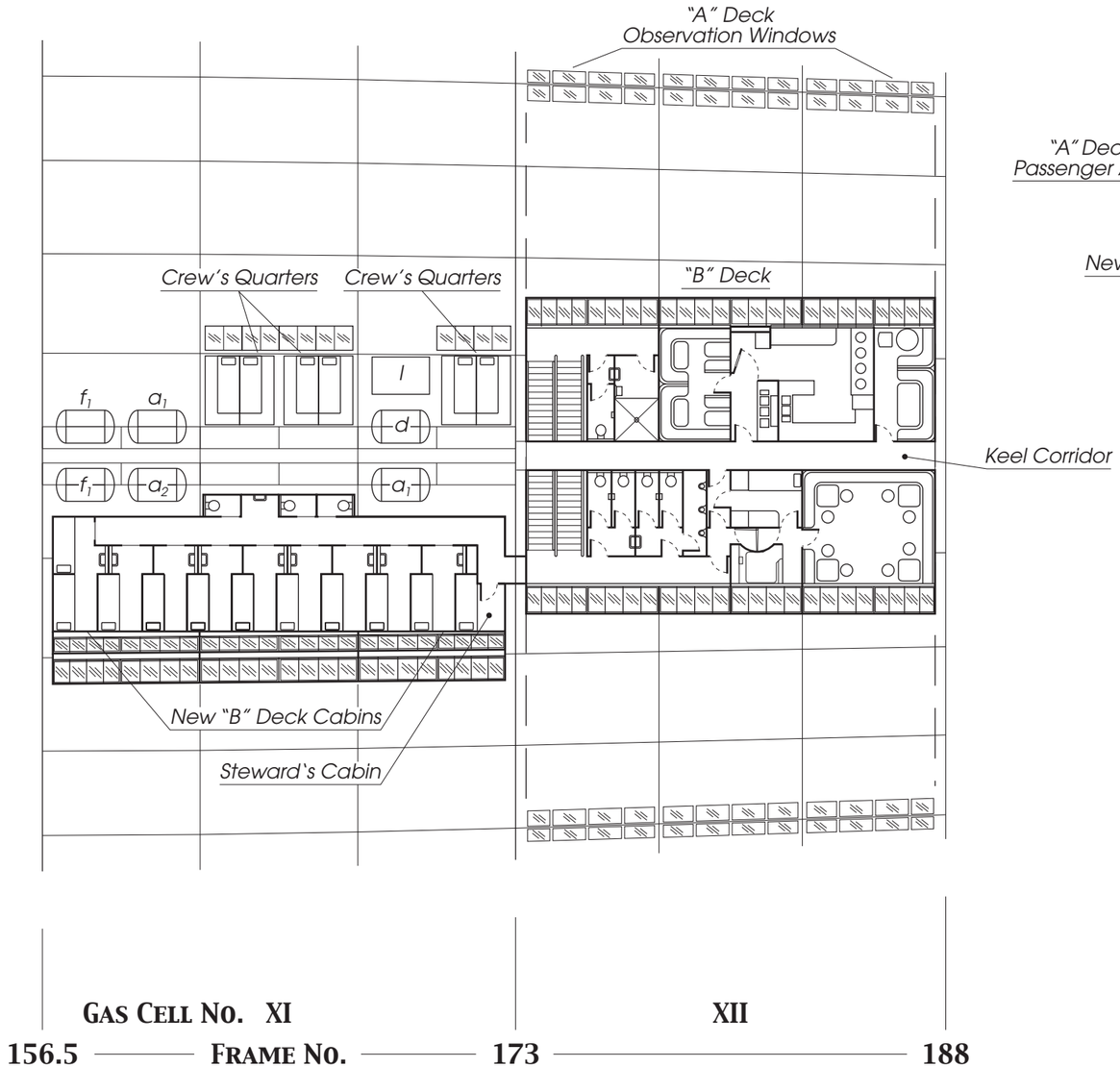


Passenger Area





“B” Deck Passenger Cabins (added 1937)

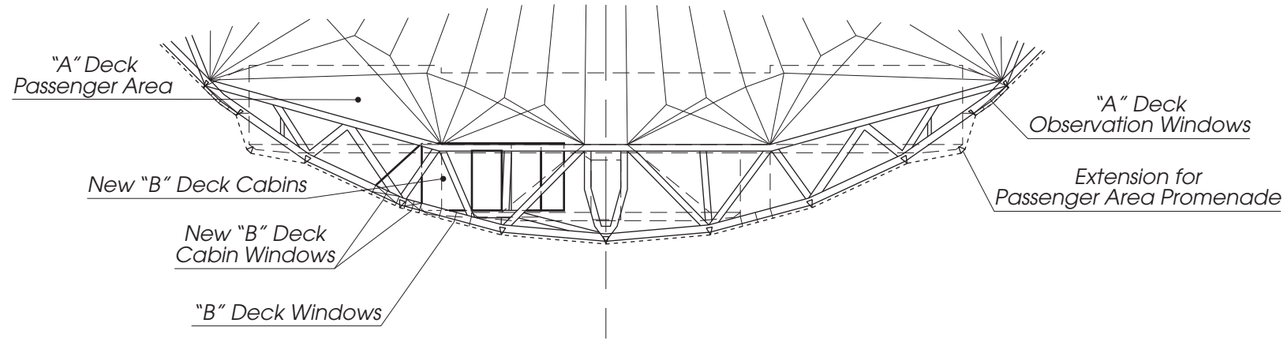


Gas Cell No. XI — **XII**

156.5 — **Frame No.** — **173** — **188**

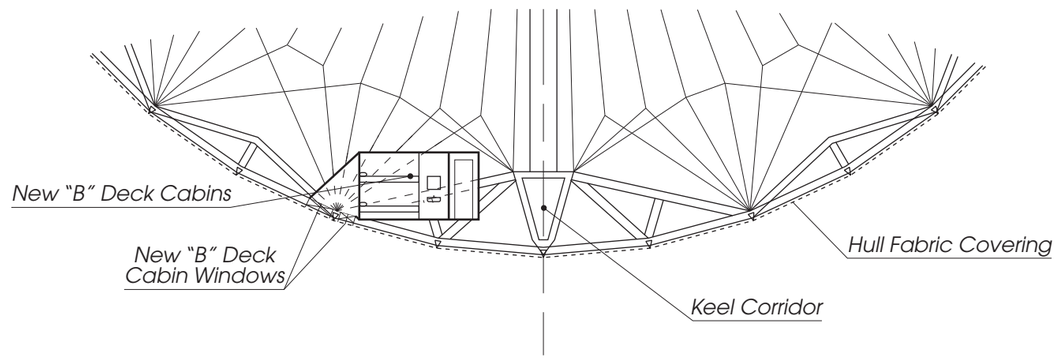
173

(looking aft)



156.5

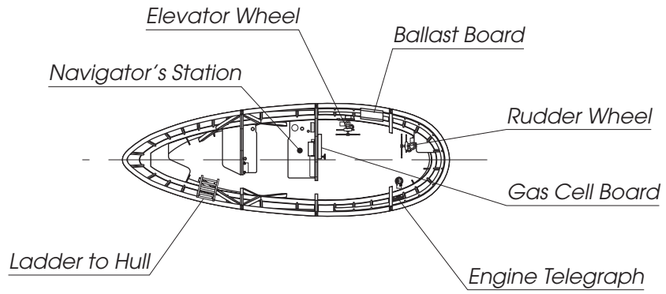
(looking aft)

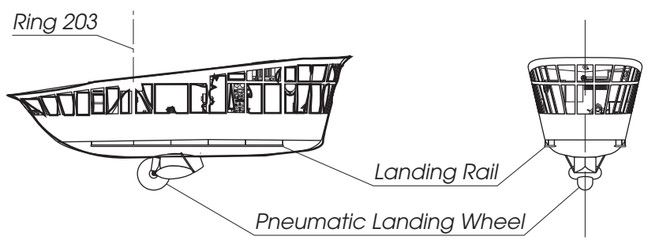


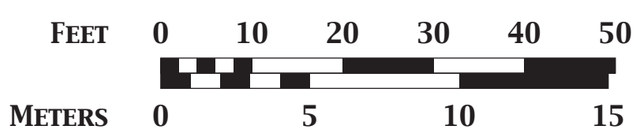
Feet 0 10 20 30 40 50

Meters 0 5 10 15

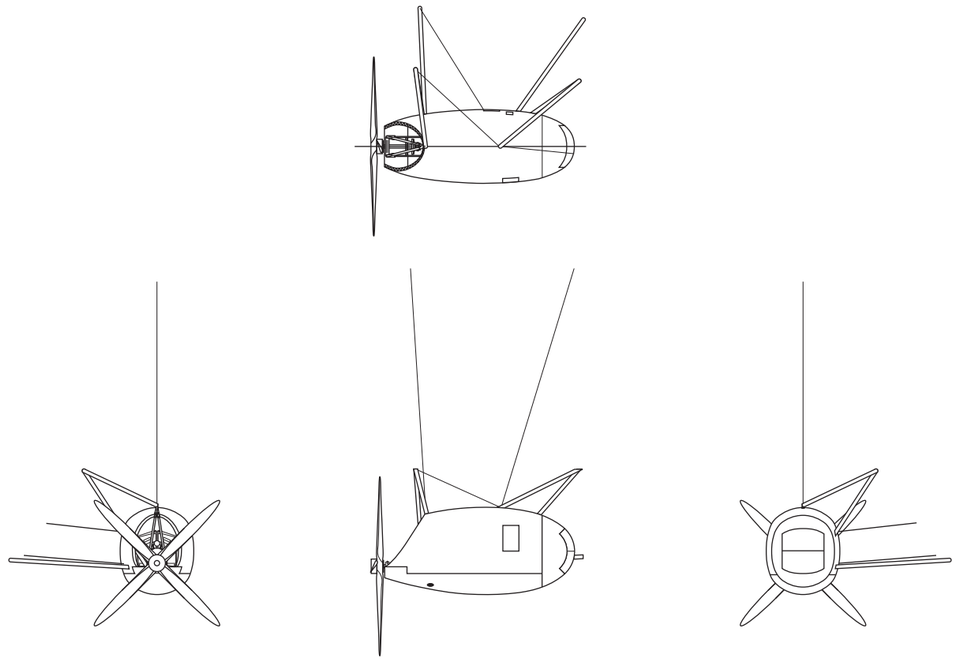
Control Gondola







Engine Car (forward)

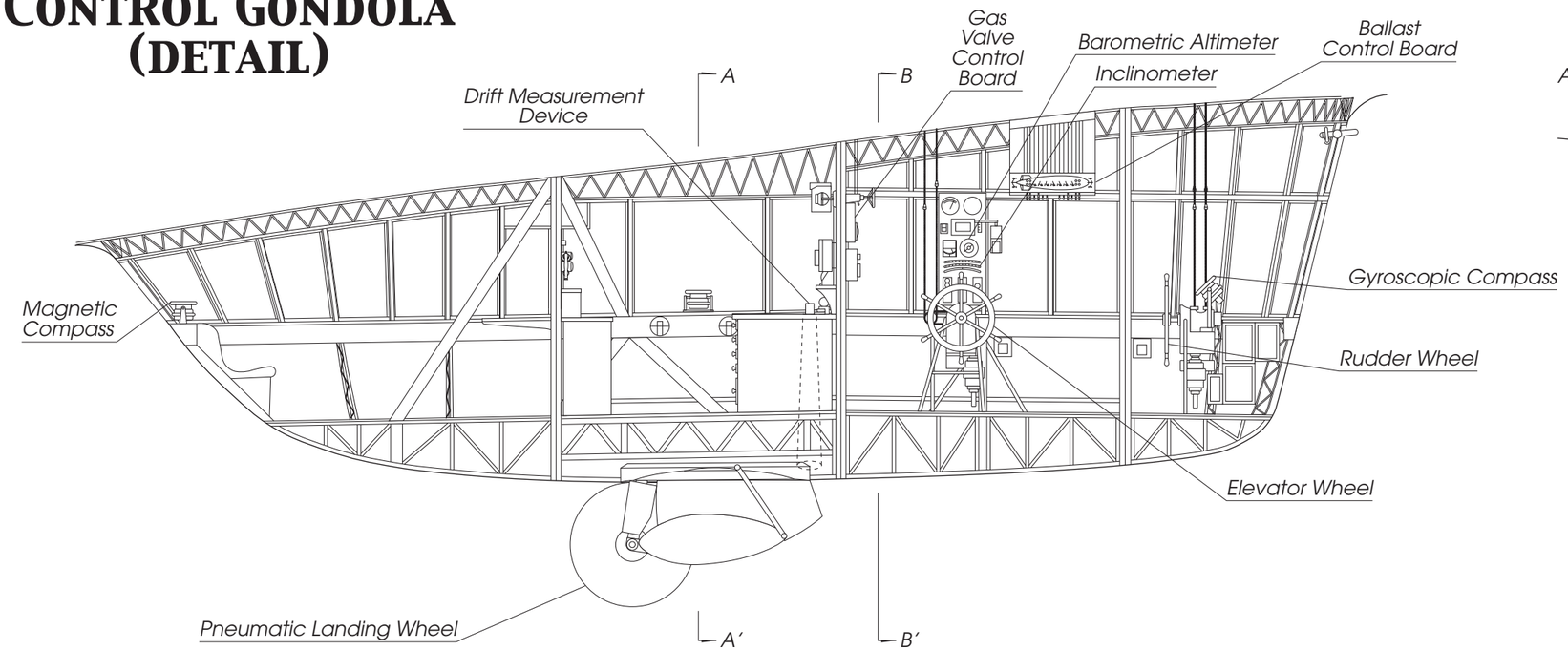


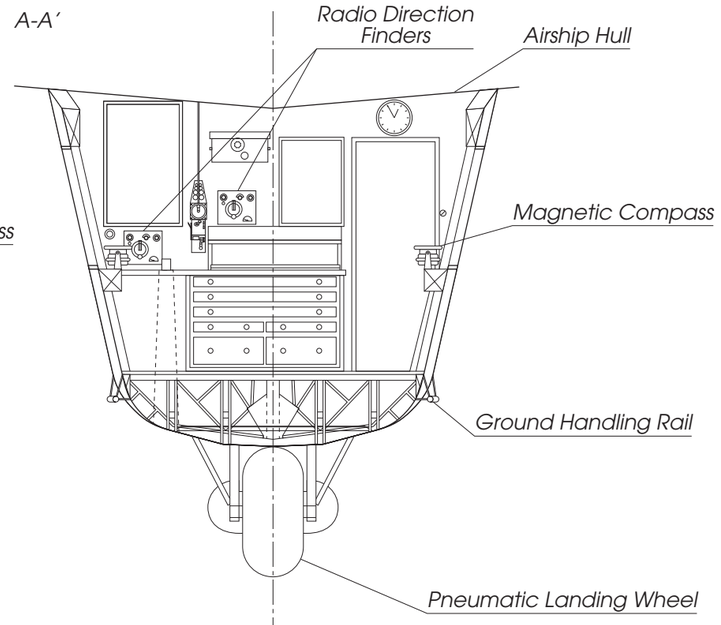
4 Engine Cars
Forward Engine Cars mounted 4° outward from ship's axis
Aft Engine Cars mounted at 3° outward from ship's axis

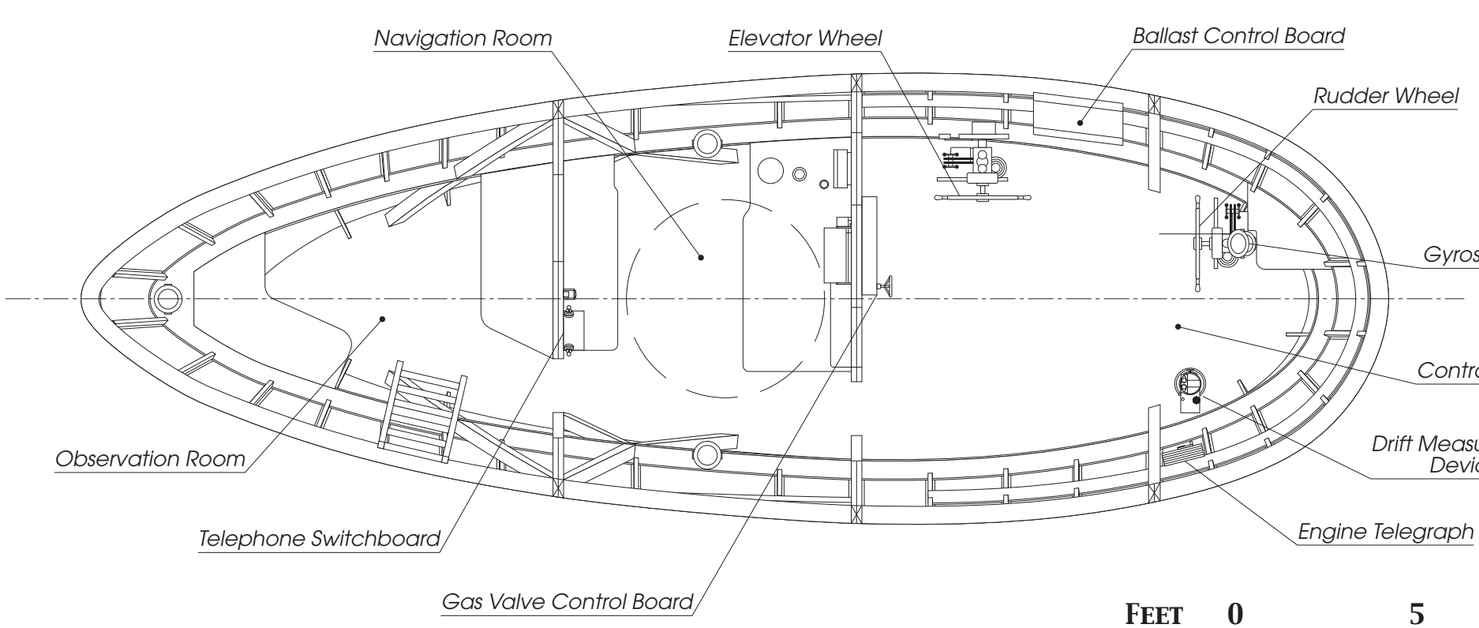
Engine specifications:
Daimler Benz LOF 6 diesel
V16, 4 valve per cylinder
770 kW (1050 hp) maximum at 1500 rpm
690 kW (940 hp) cruising at 1350 rpm
225 g/kWh (0.37 lbs./hp/h) fuel consumption (cruising)

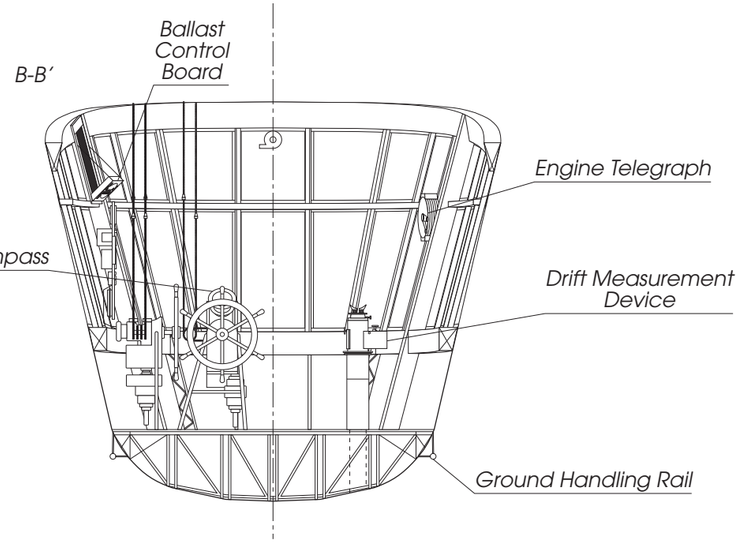
Propeller diameter: 6.0 meters (19.7 feet)
Propeller rpm (cruising): 625 rpm
Maximum air speed: 137 kph (85 mph)
Cruising air speed: 120 kph (75 mph)

Control Gondola (detail)







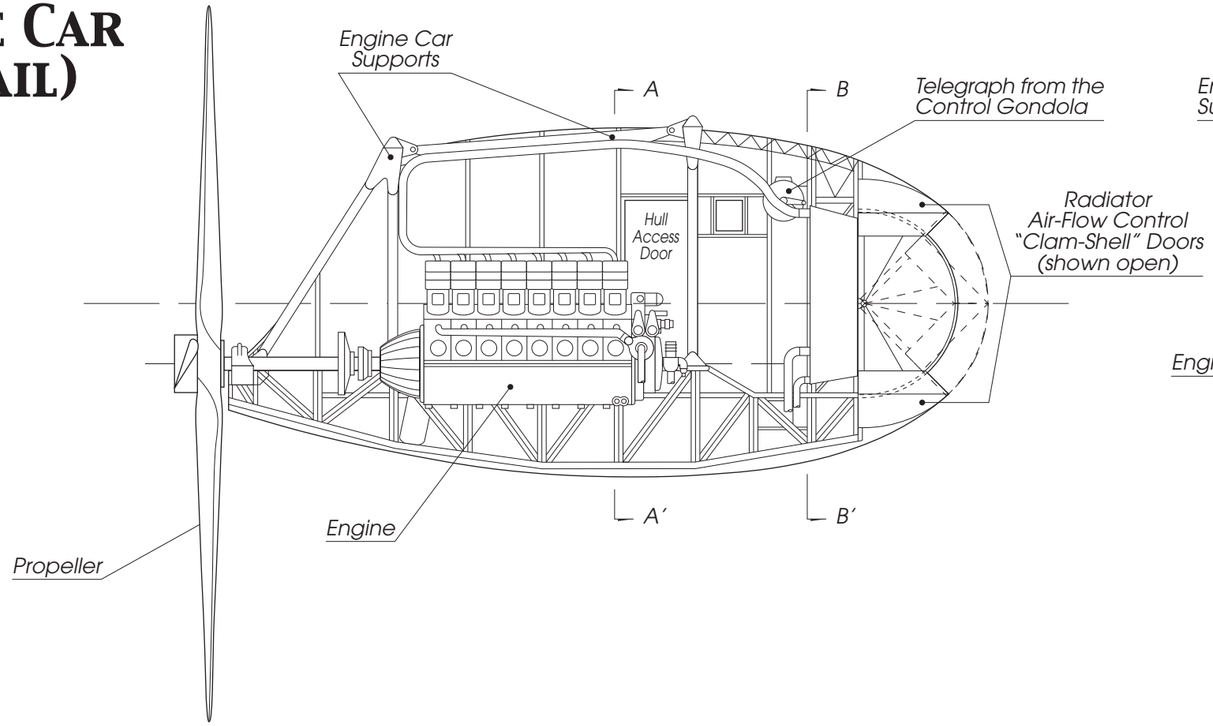


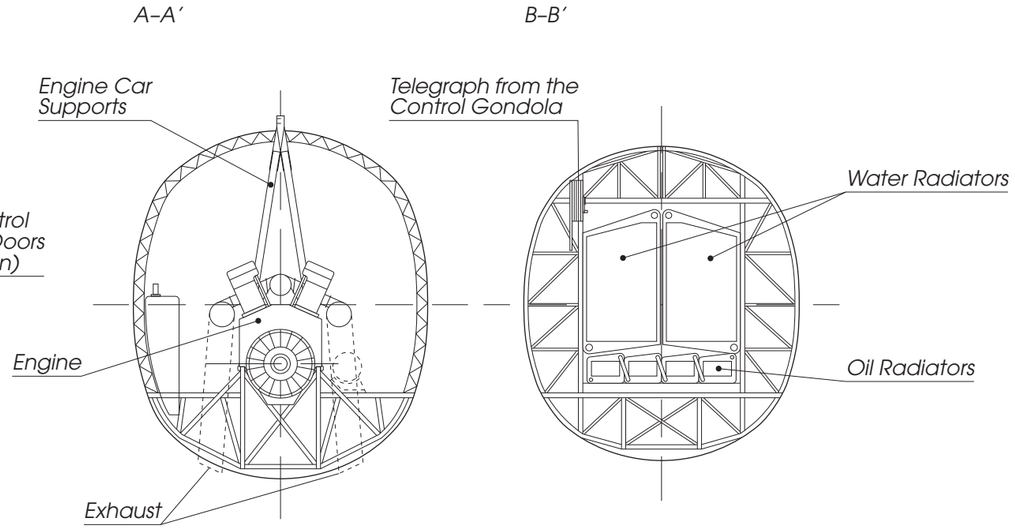
Feet 0 5 10 15

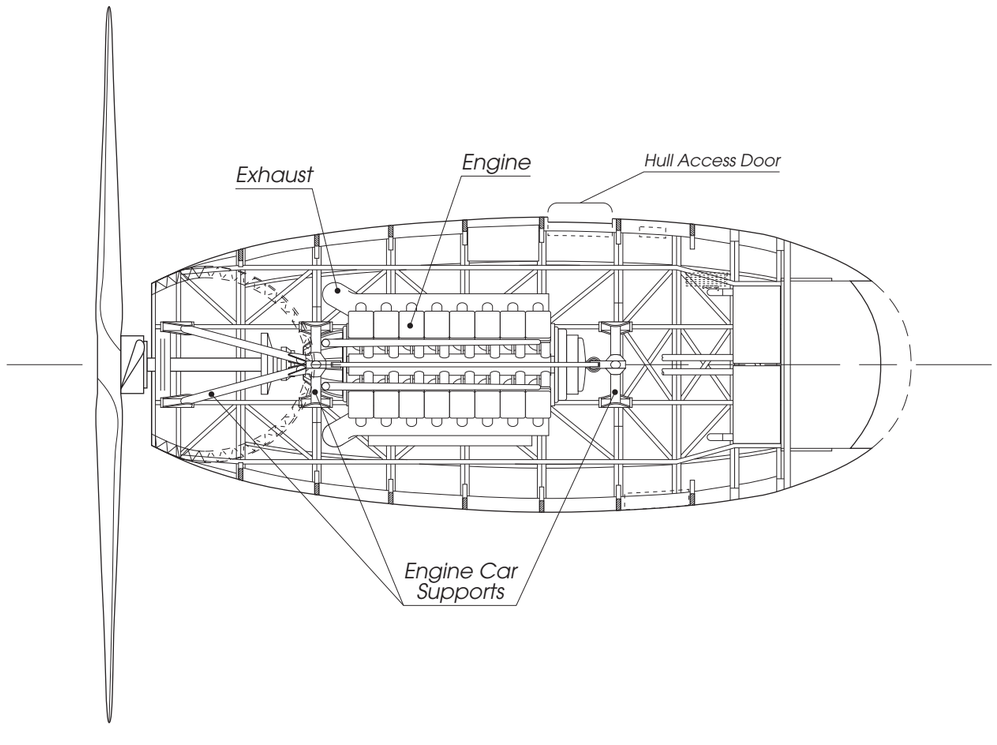
Meters 0 1 2 3 4 5

Scale 1/50

Engine Car (detail)



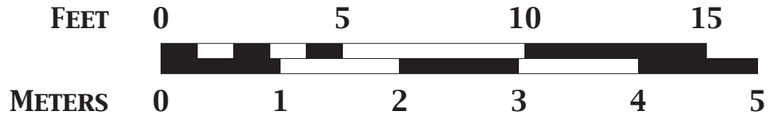




4 Engine Cars
Forward Engine Cars mounted 4° outward from ship's axis
Aft Engine Cars mounted at 3° outward from ship's axis

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)

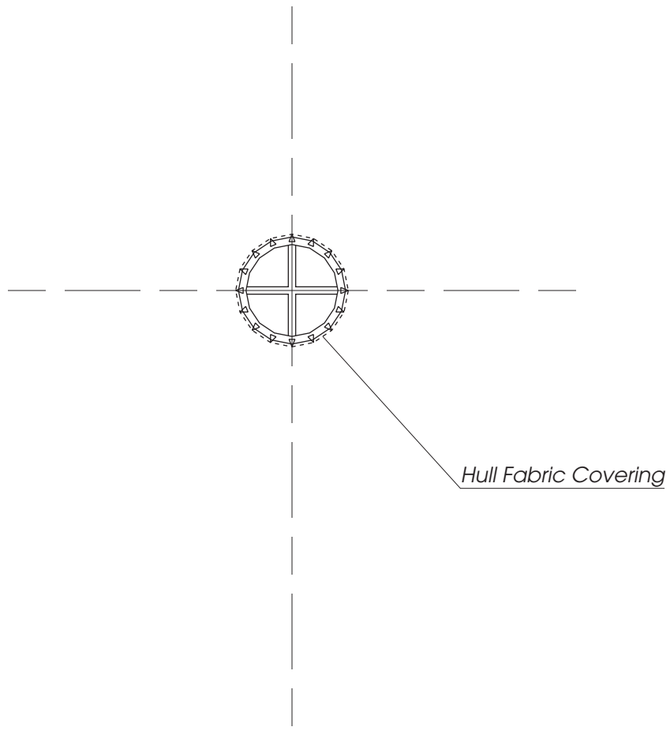
Two 2-blade propellers fixed together to create one 4-blade propeller
Propeller diameter: 6.0 meters (19.7 feet)
Propeller maximum tip velocity 848 kph (527 mph)
Propeller rpm (cruising): 675 rpm
Maximum air speed: 137 kph (85 mph)
Cruising air speed: 120 kph (75 mph)



SCALE 1/50

Main Rings

3.5



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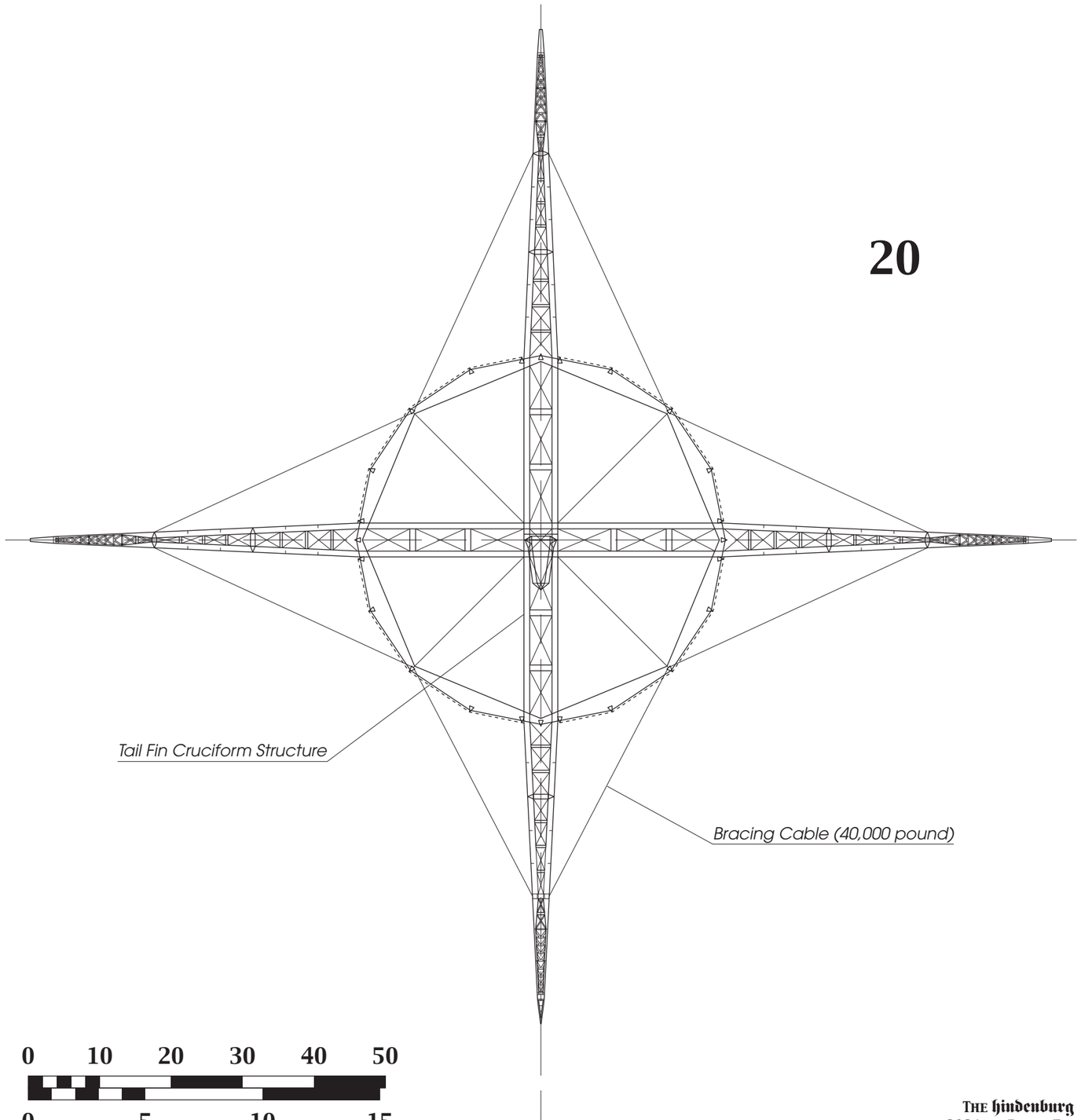
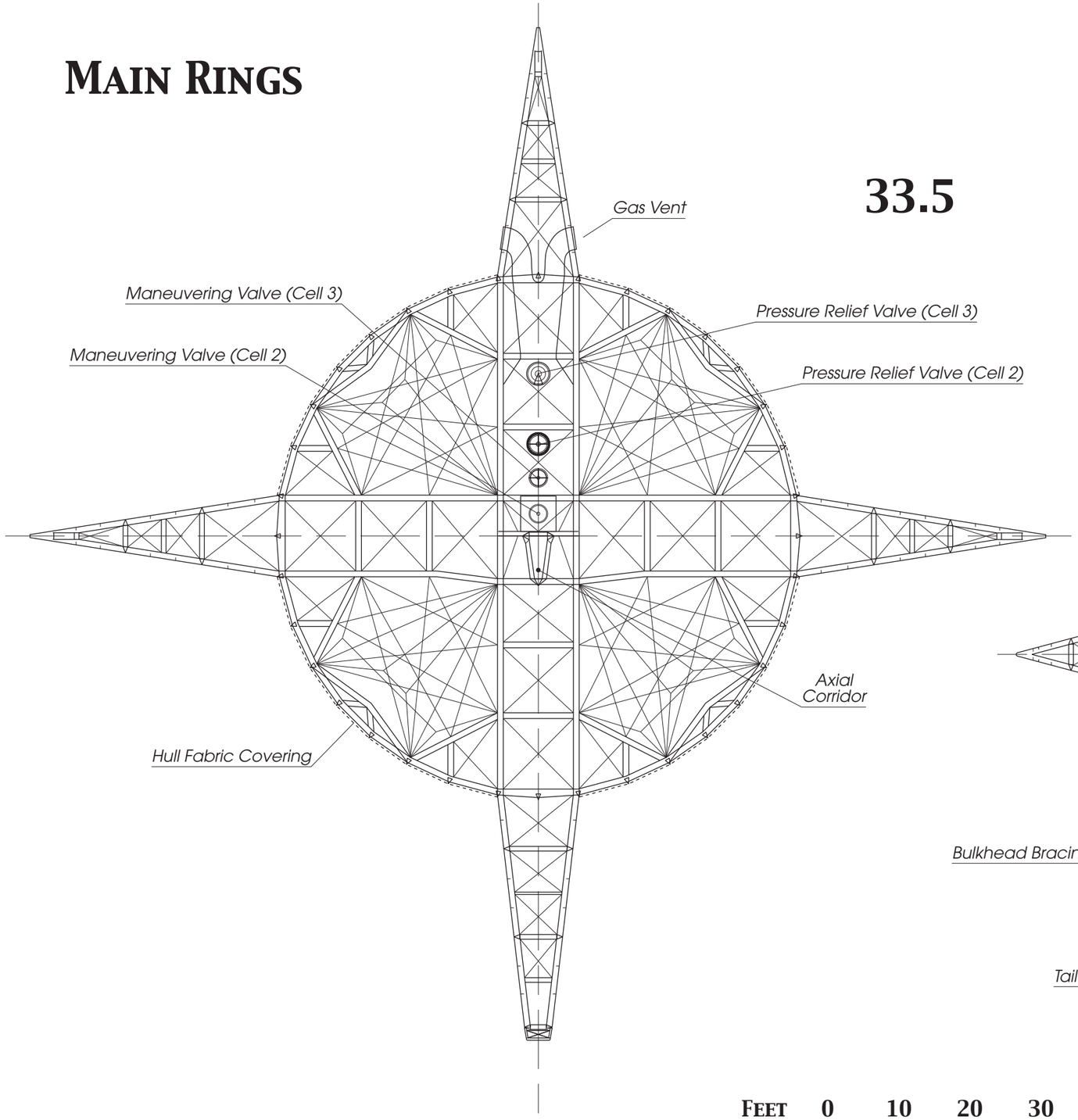


FEET 0 10 20 30 40 50

METERS 0 5 10 15

Main Rings

33.5



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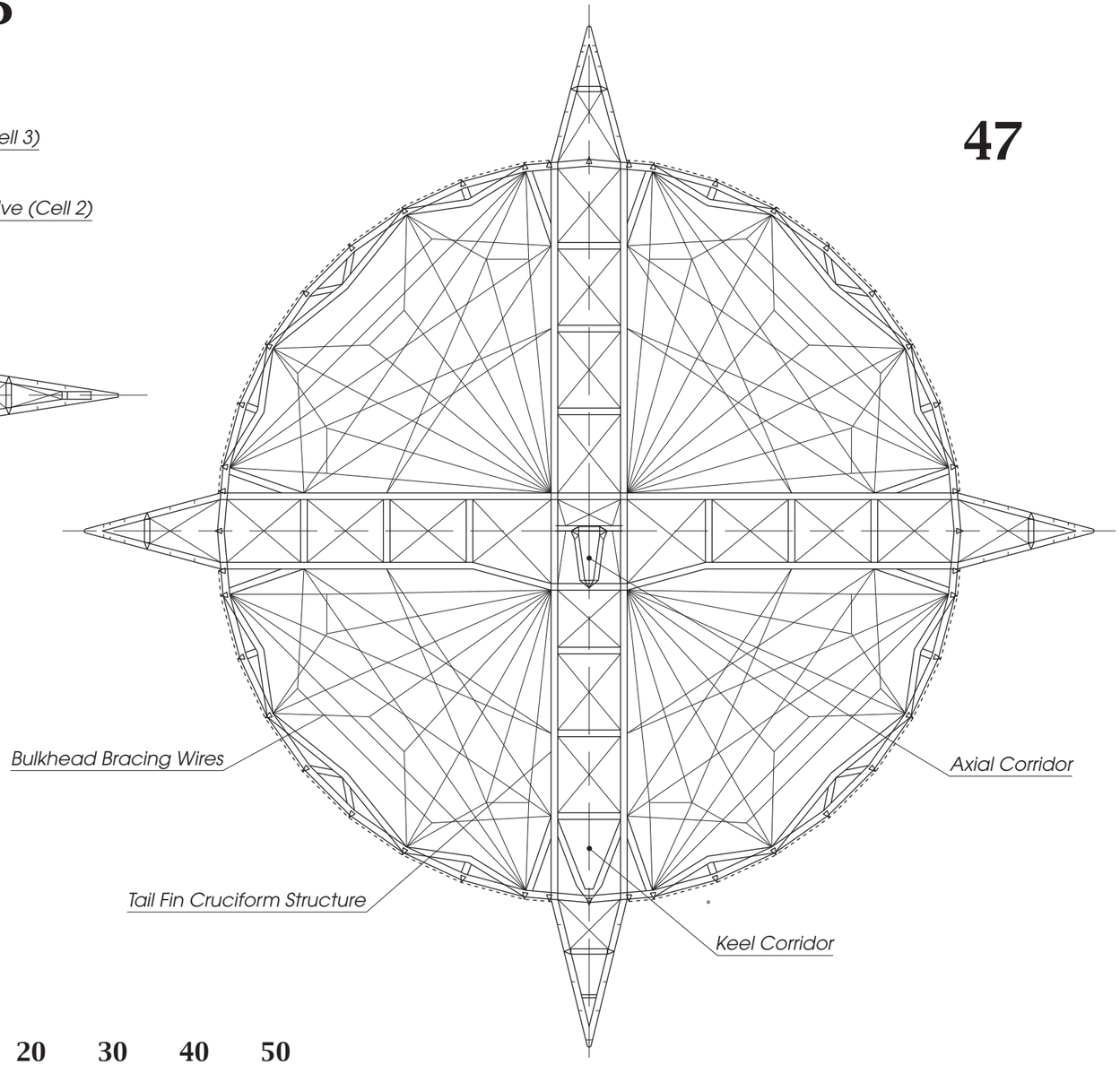
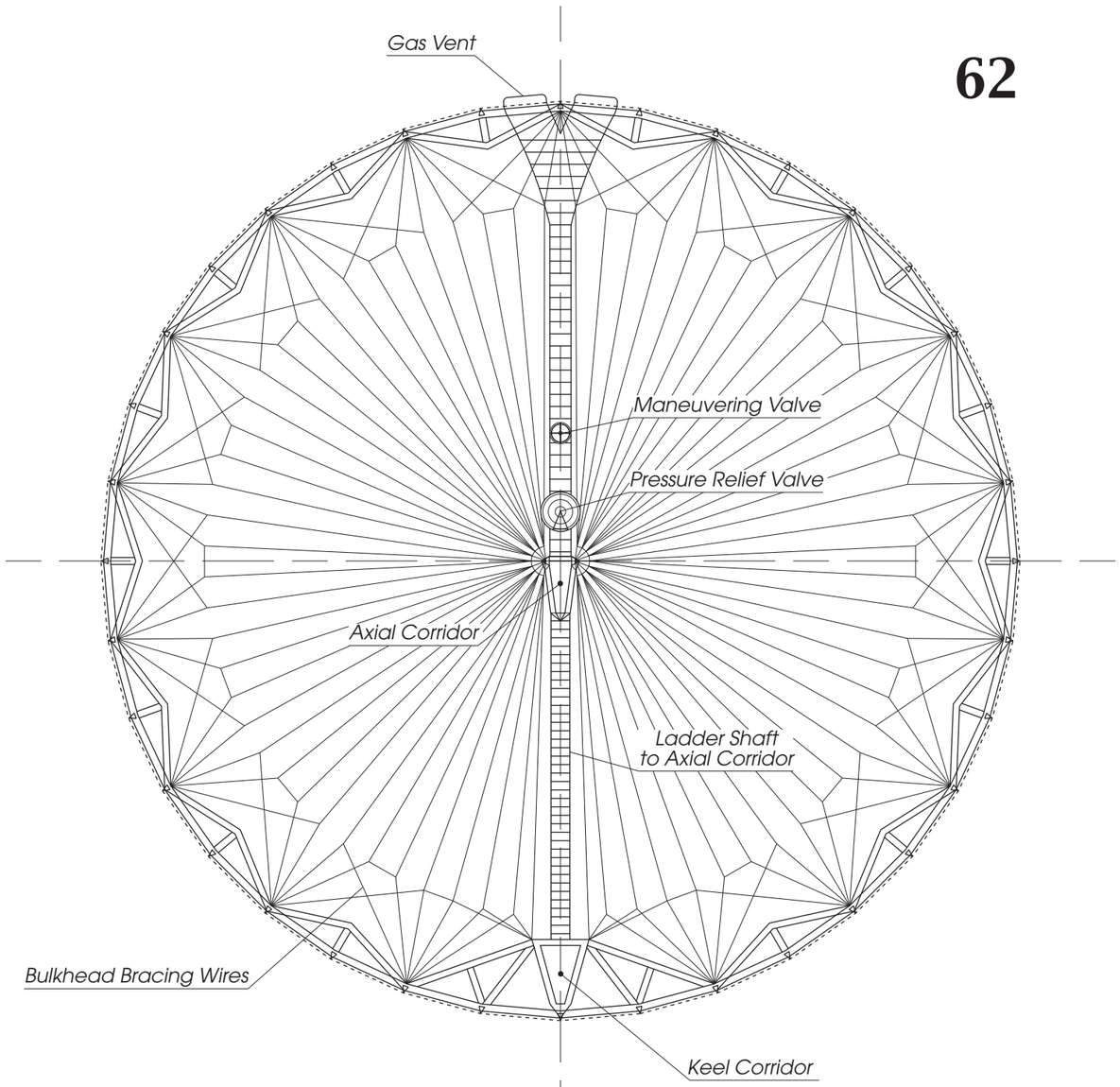
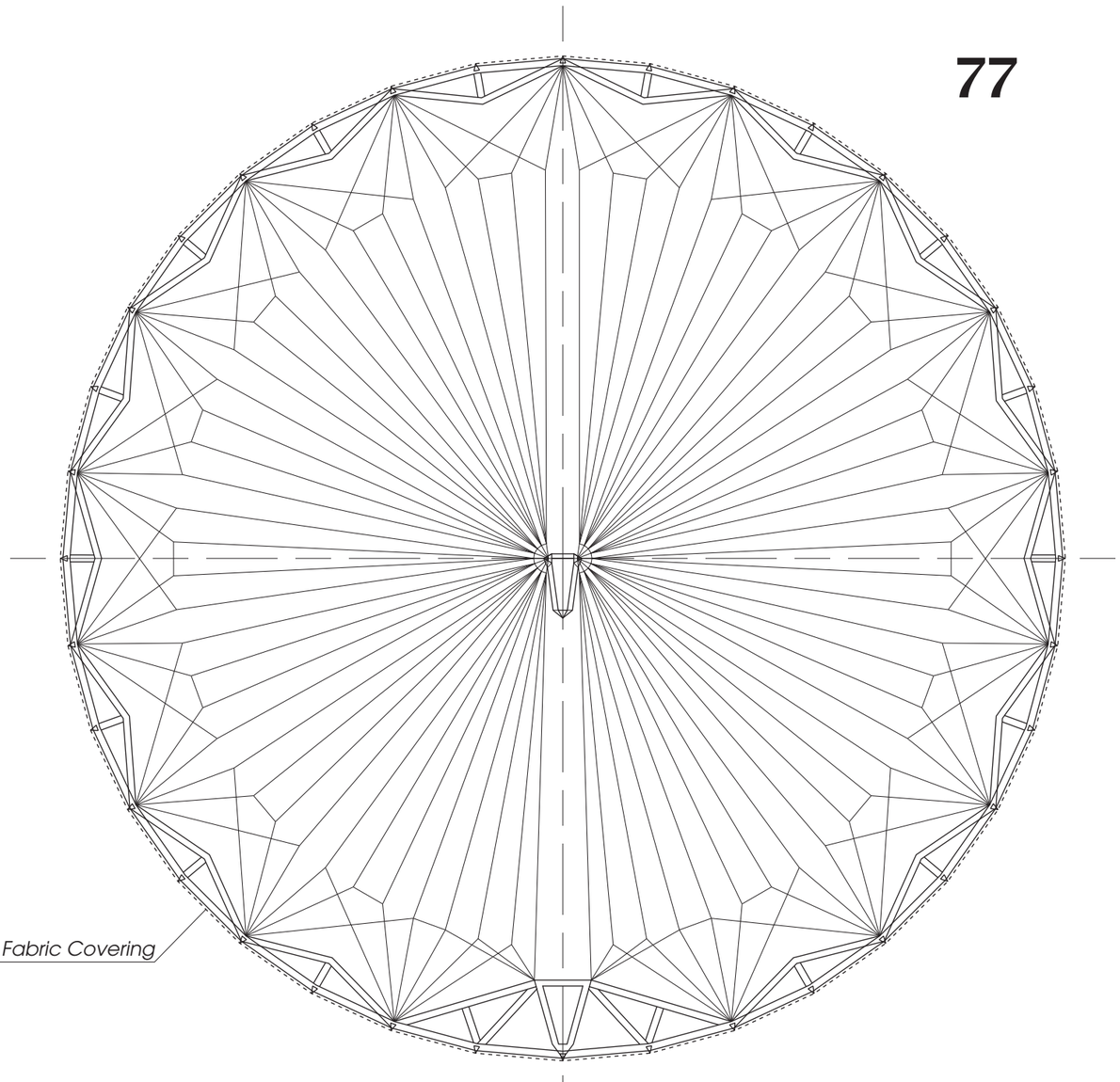


FEET 0 10 20 30 40 50

METERS 0 5 10 15

Main Rings

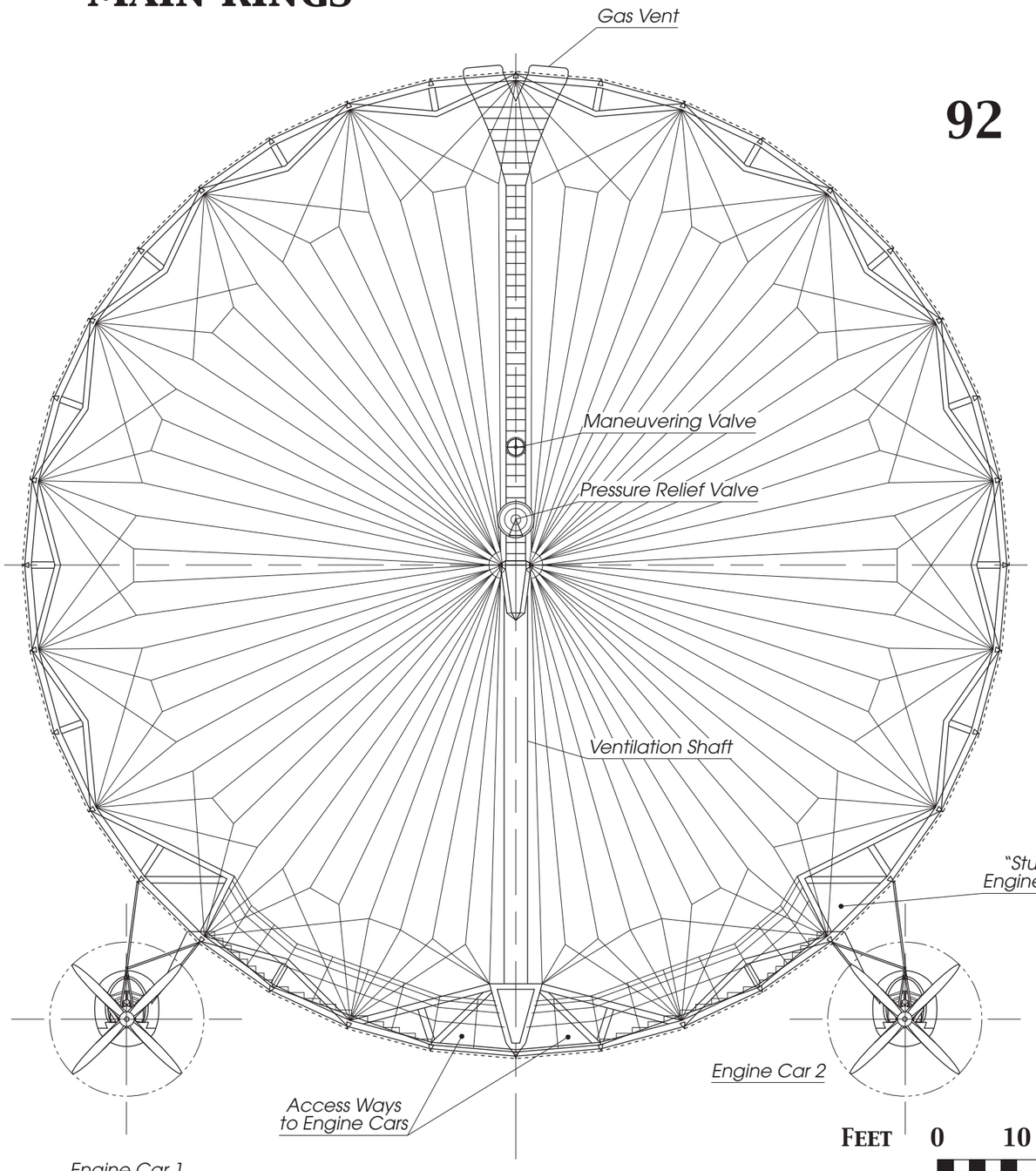


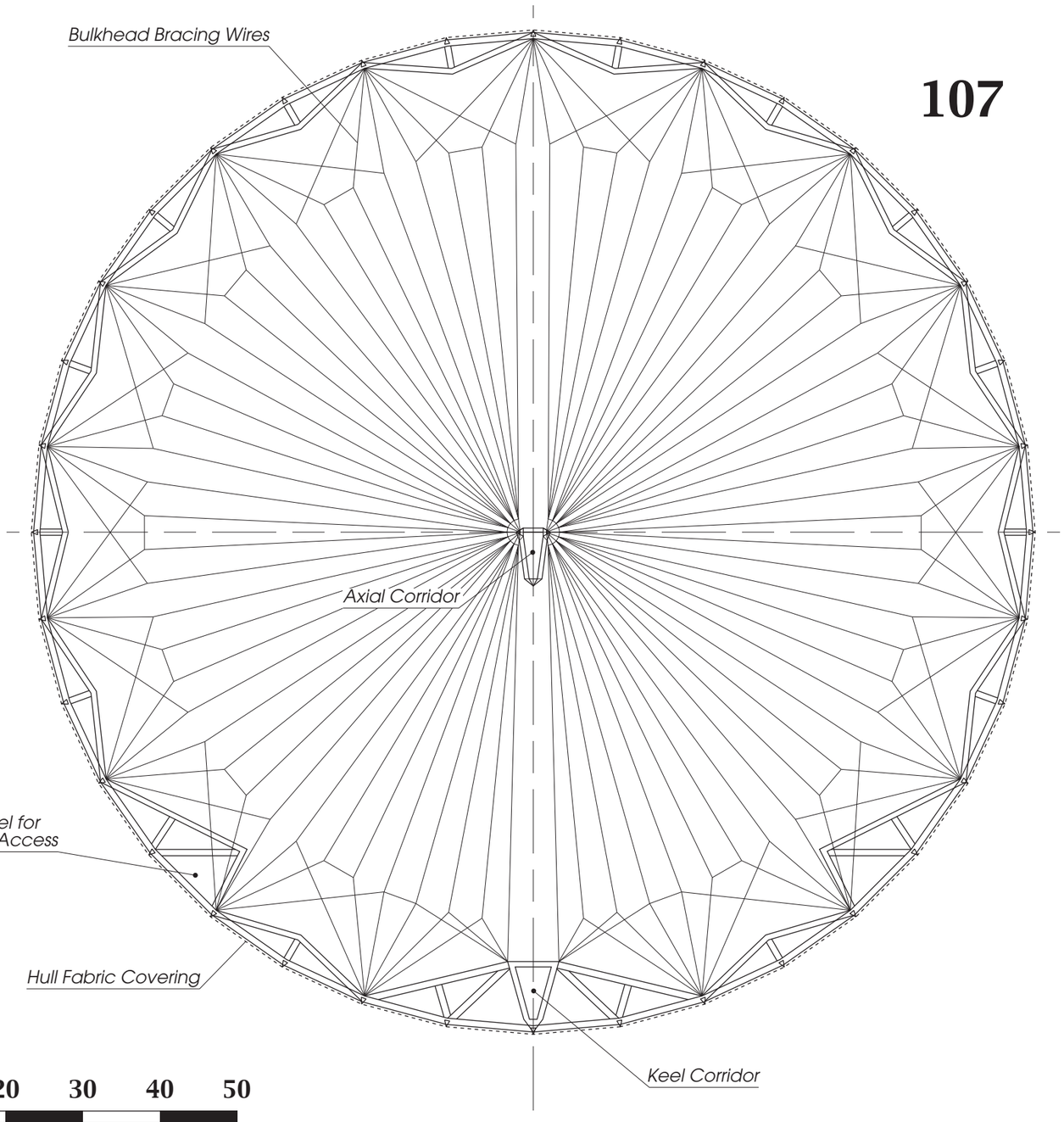


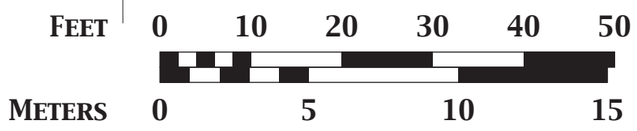
FEET 0 10 20 30 40 50

METERS 0 5 10 15

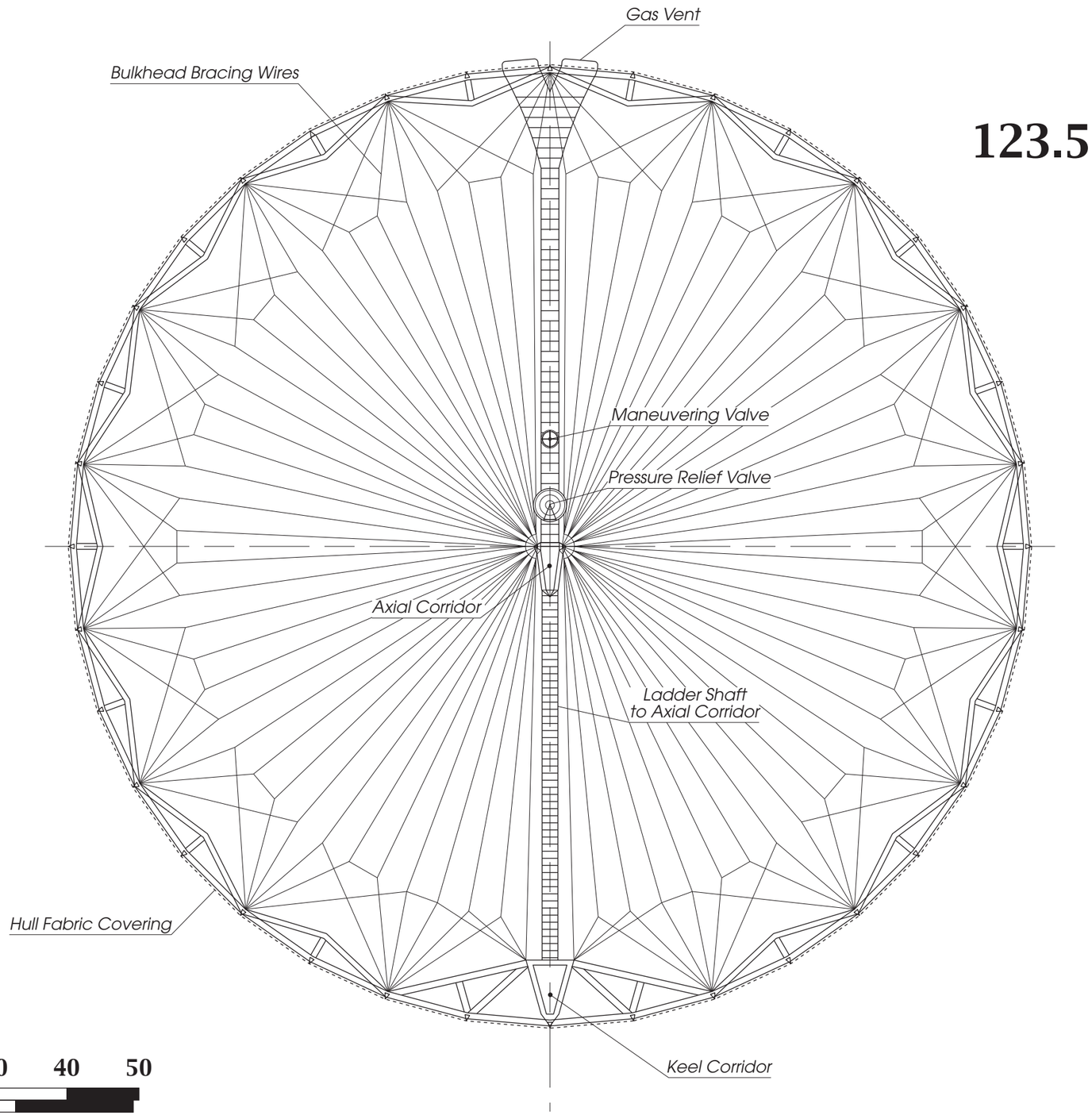
Main Rings







Main Rings



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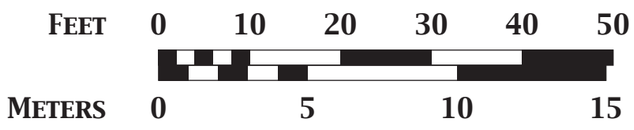
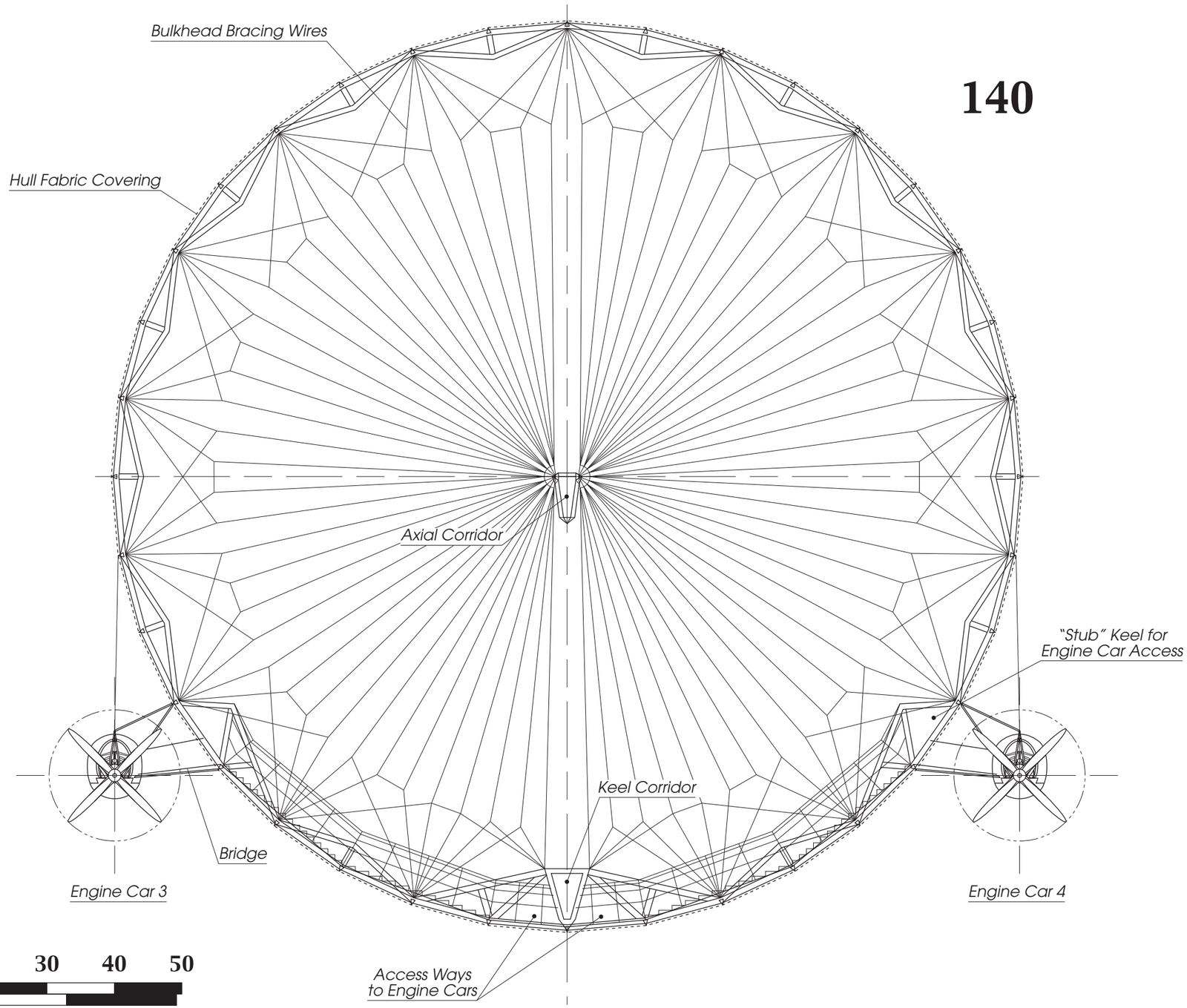


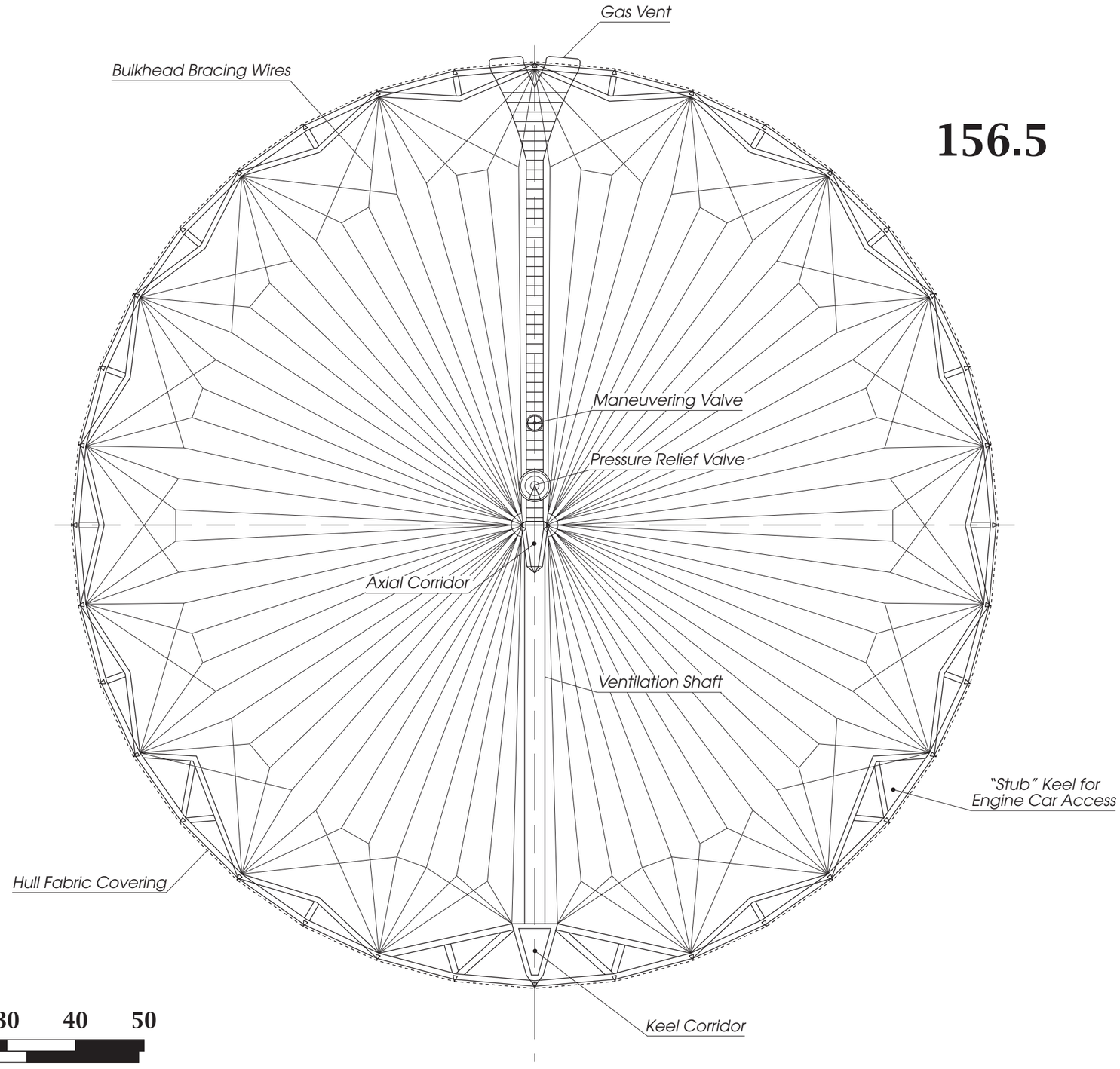
Main Rings

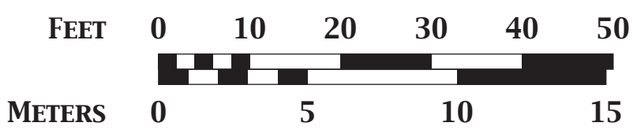


FEET 0 10 20 30 40 50

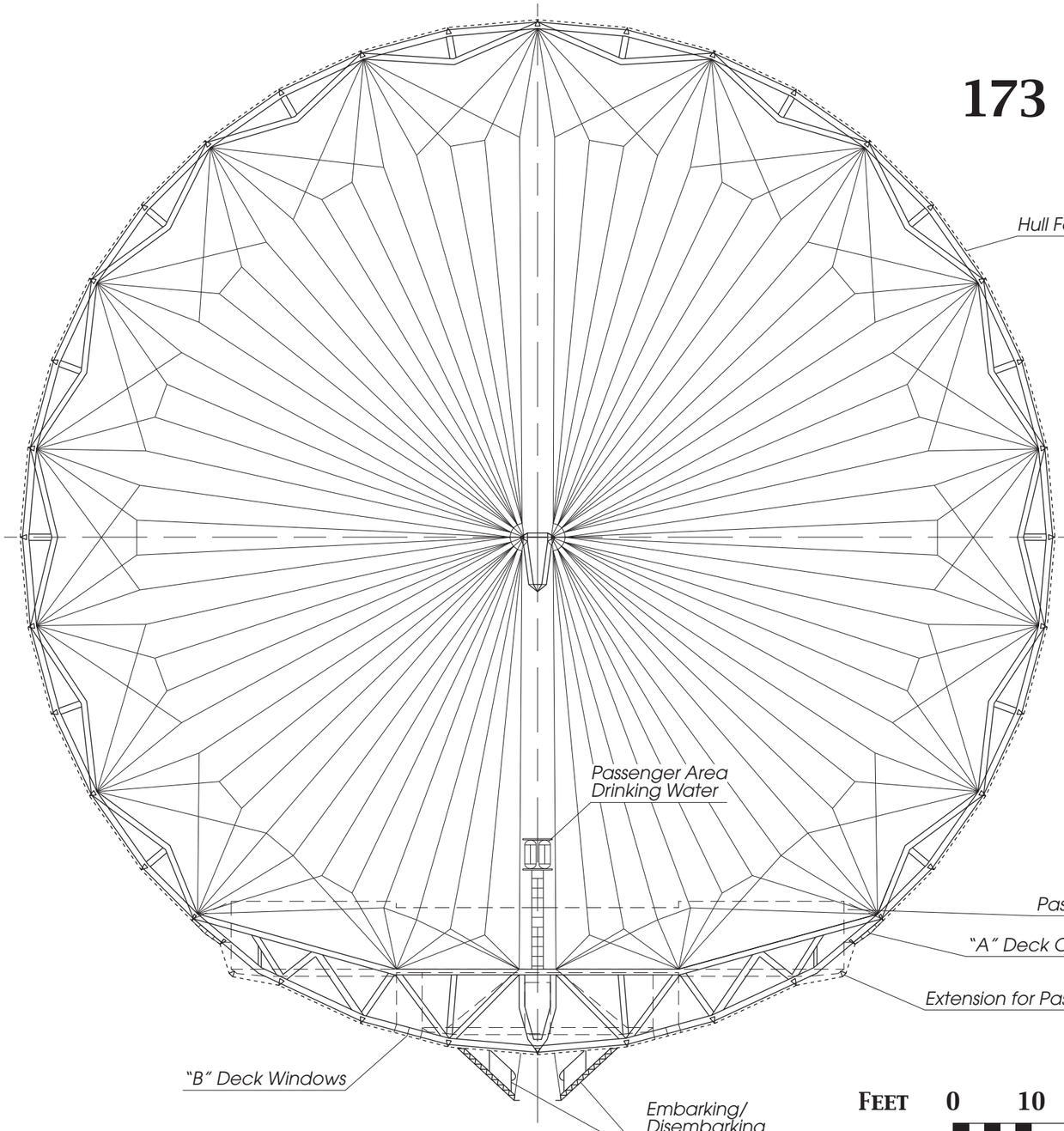
METERS 0 5 10 15

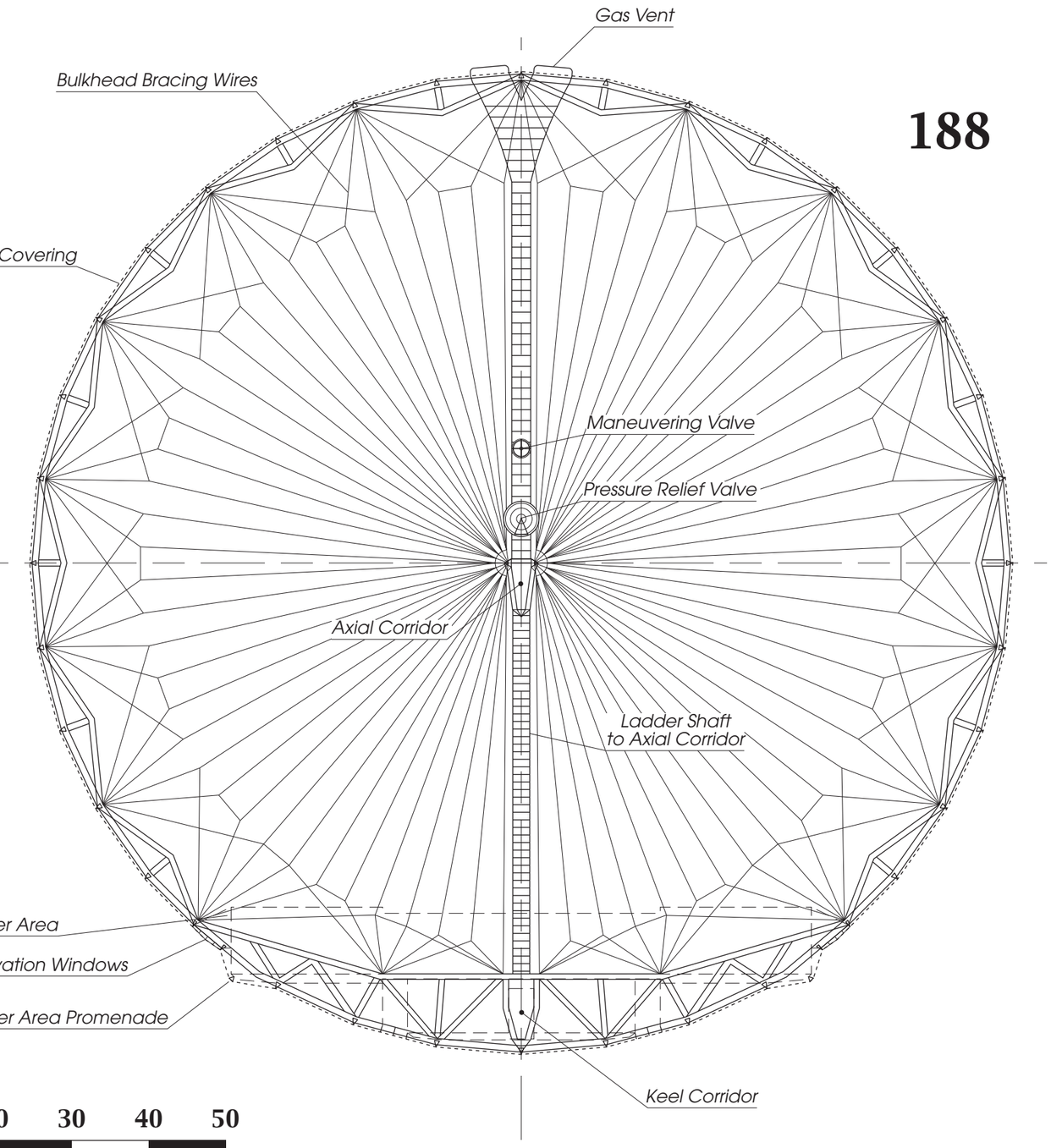
Main Rings

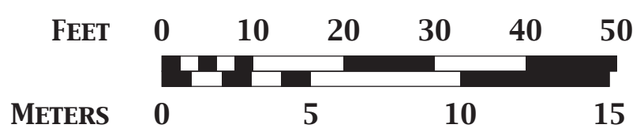




Main Rings

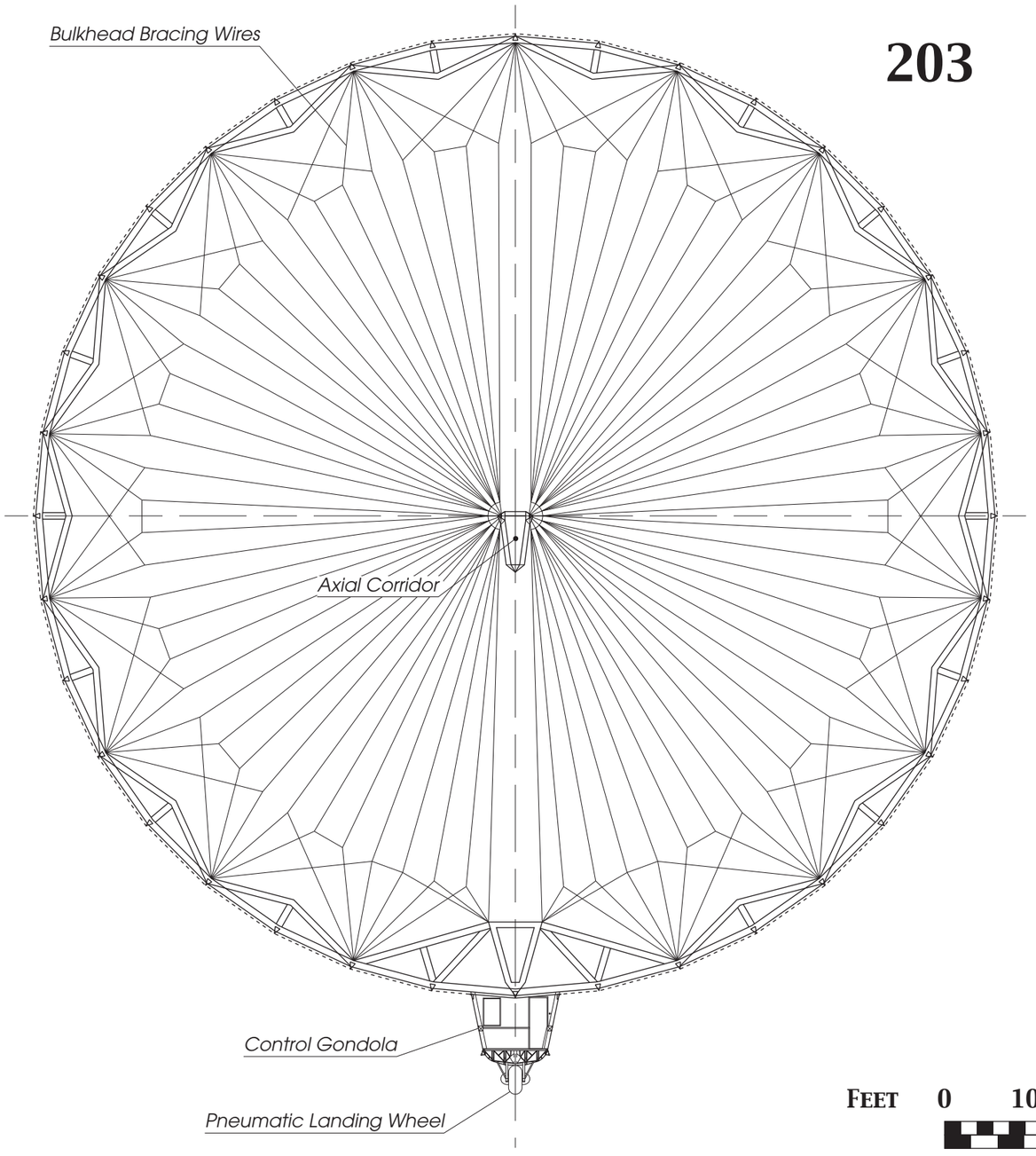


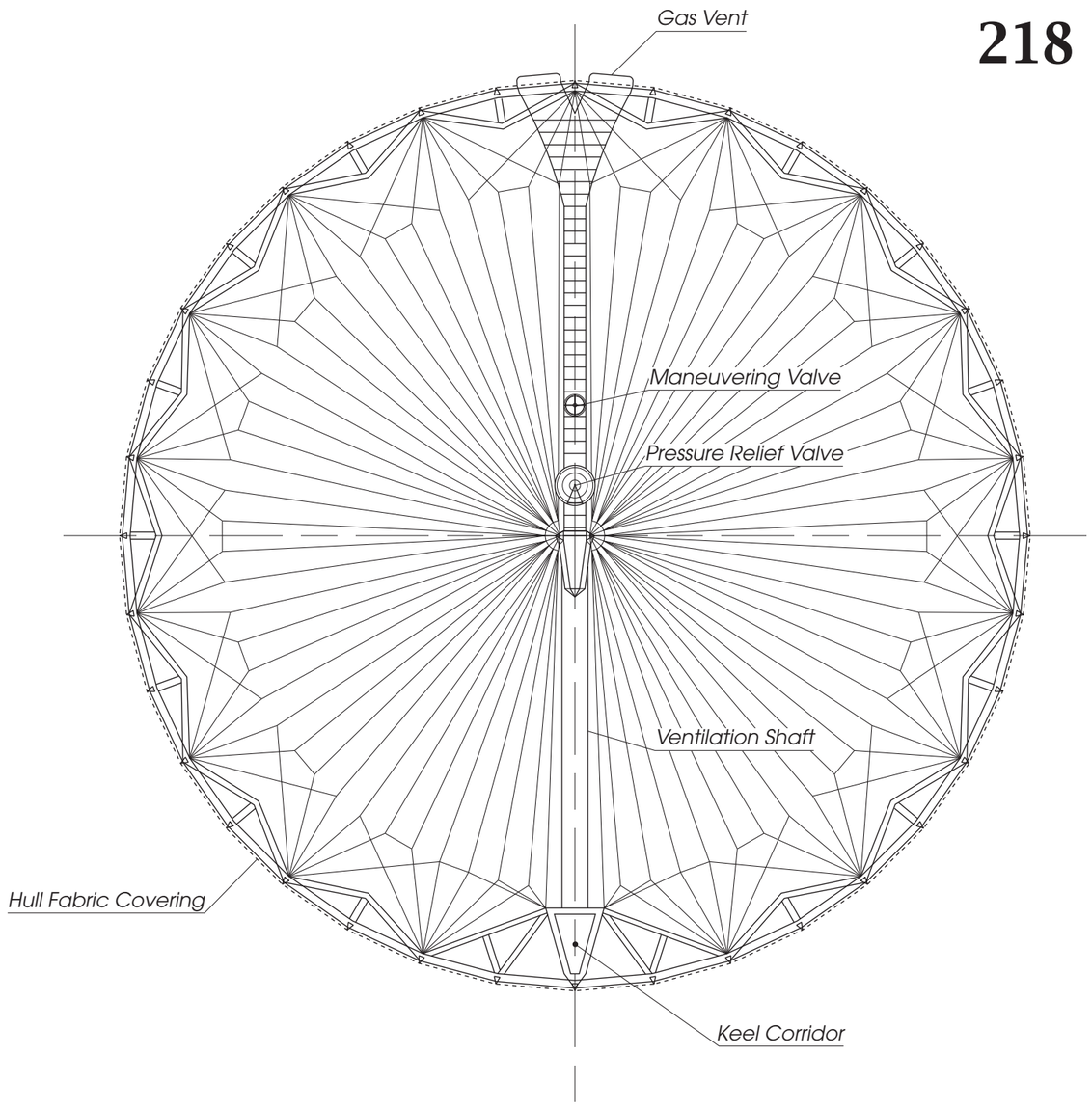


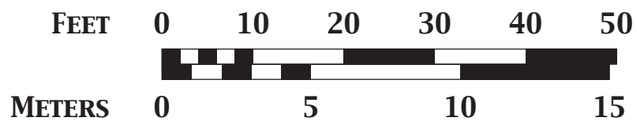


THE hindenburg

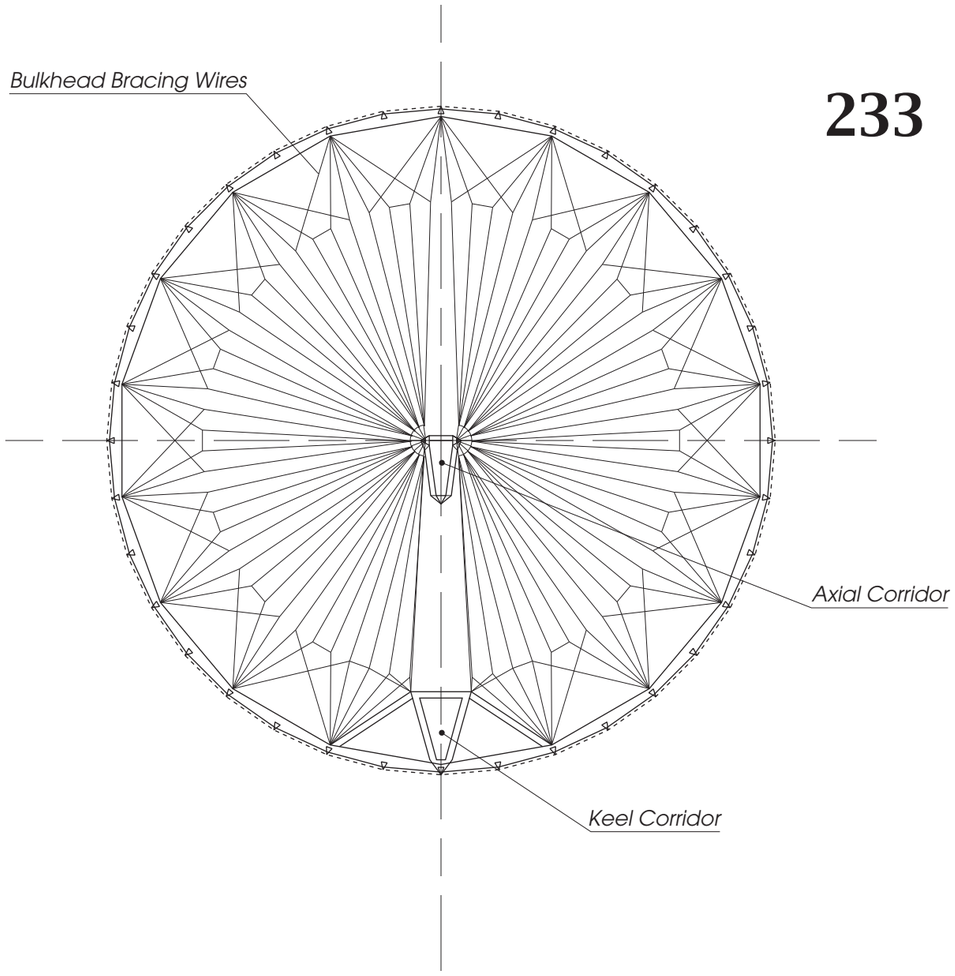
Main Rings





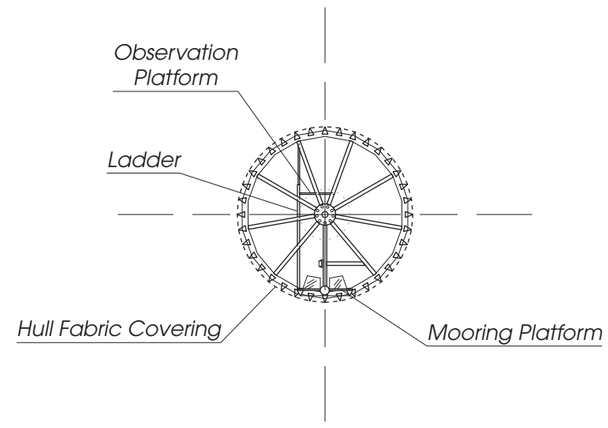


Main Rings



233

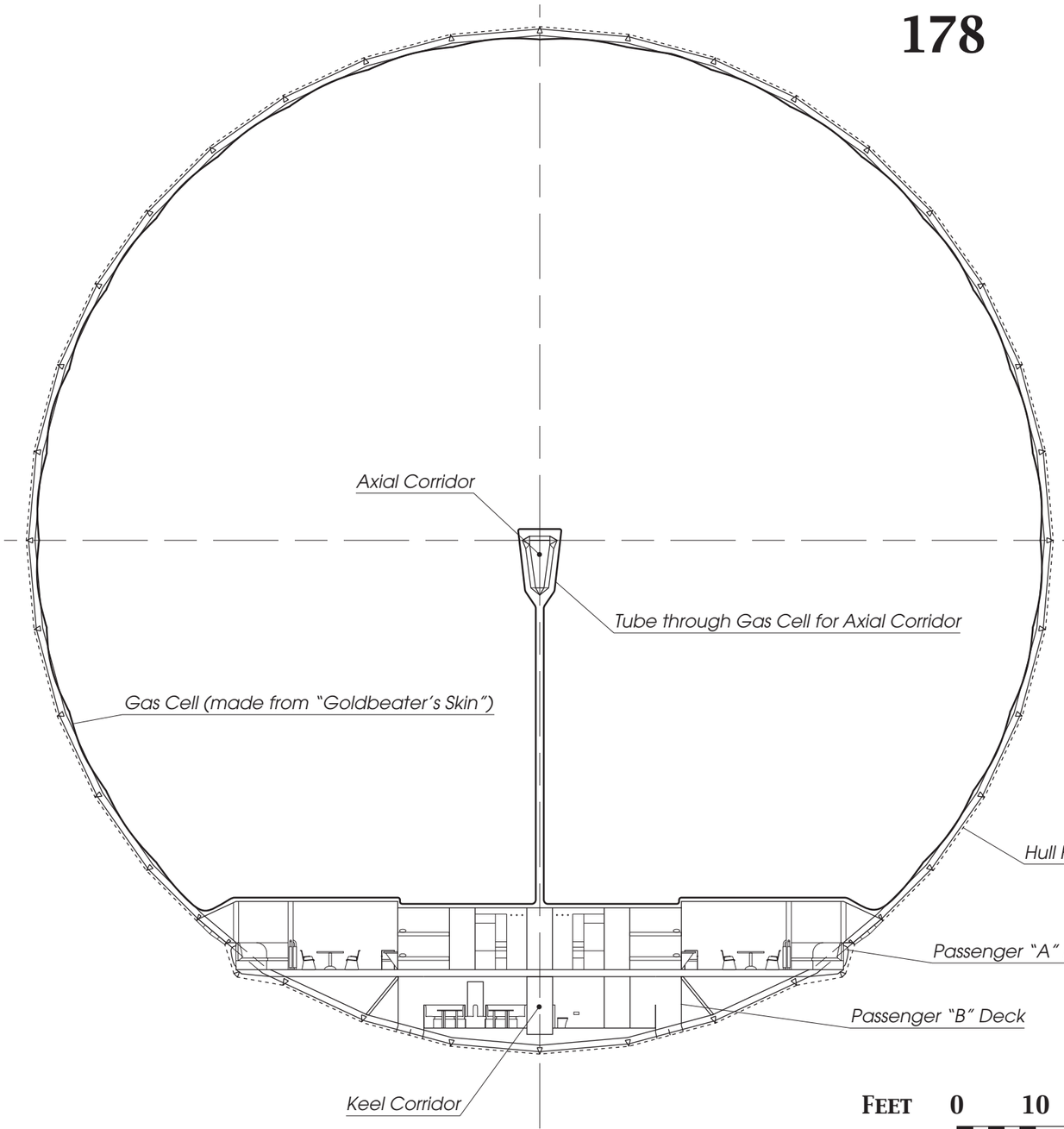
244.5

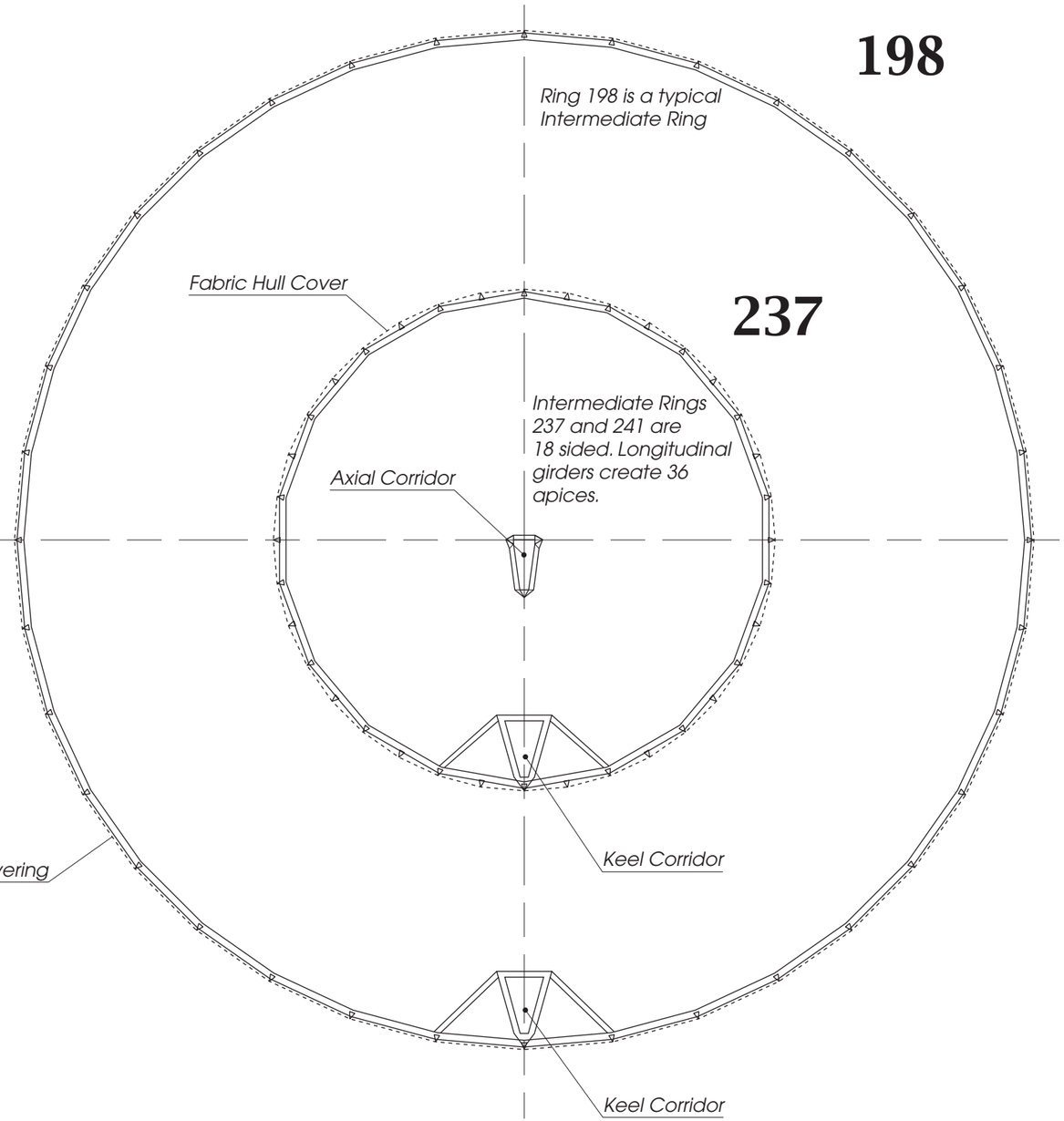


Feet 0 10 20 30 40 50

Meters 0 5 10 15

Intermediate Rings

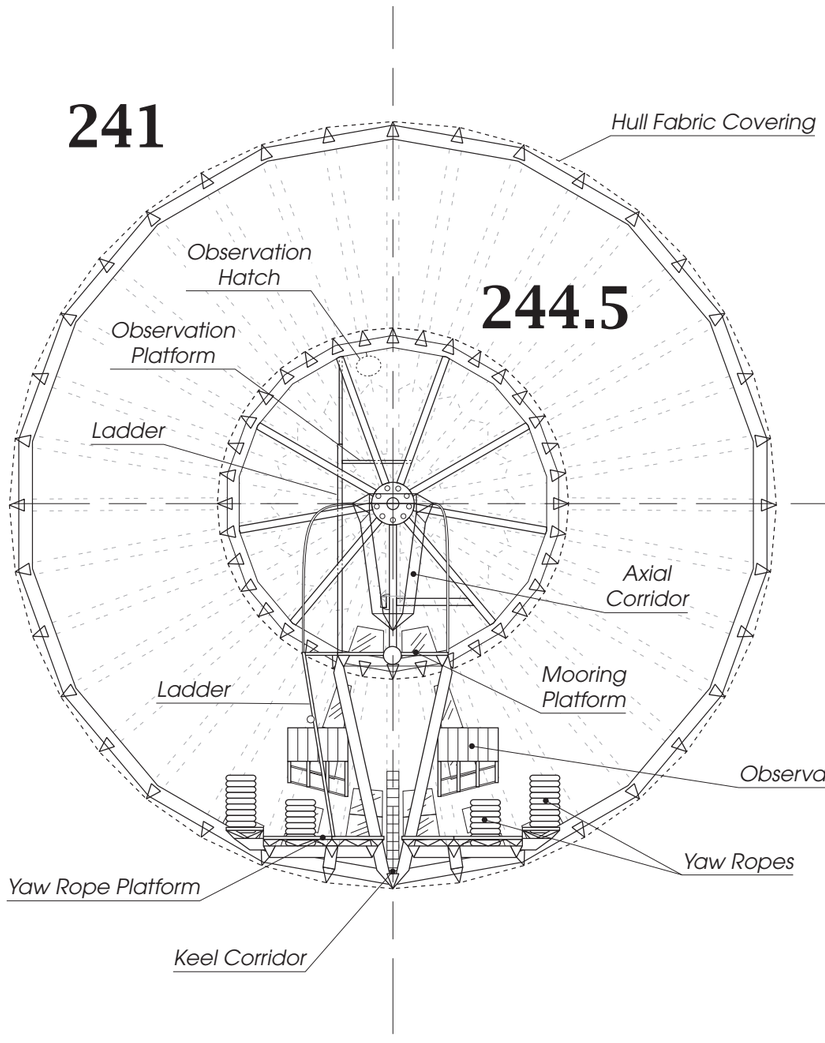


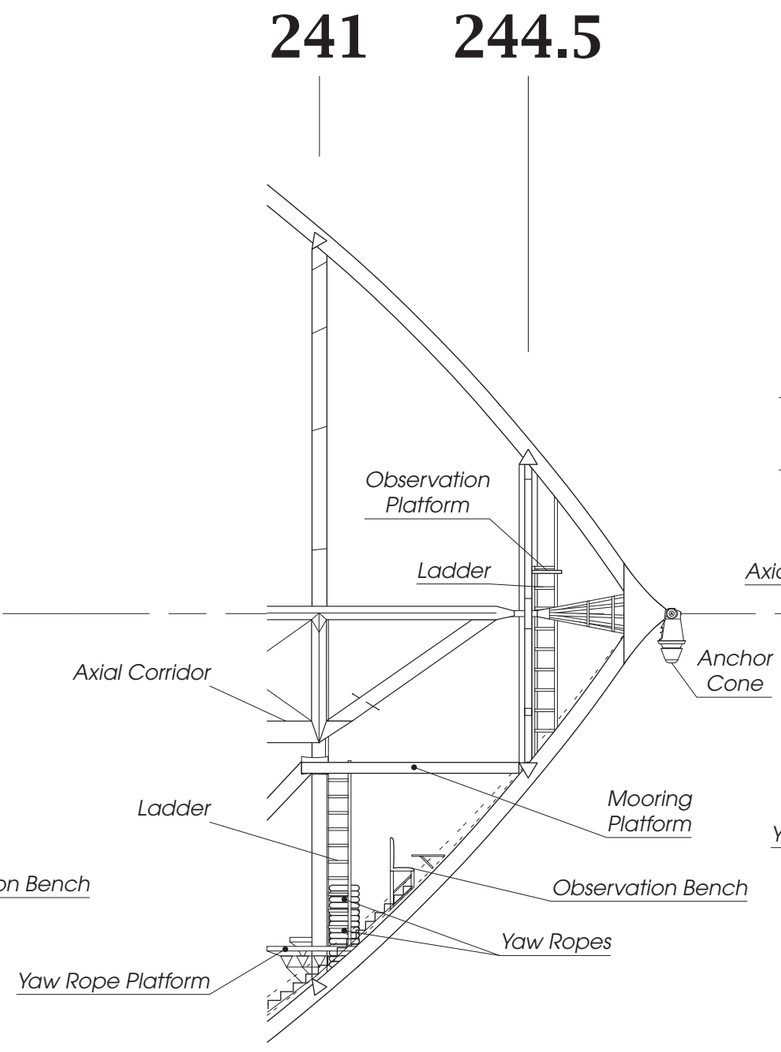


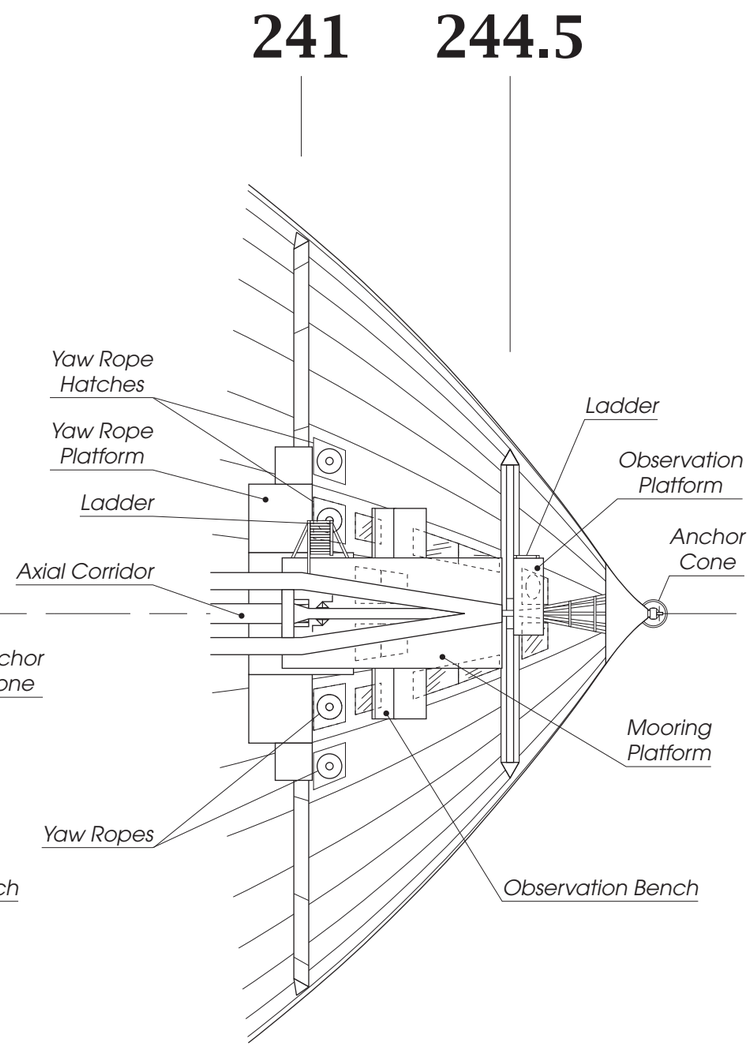
FEET 0 10 20 30 40 50

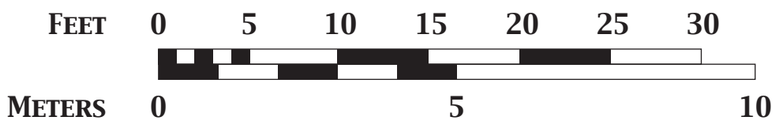
METERS 0 5 10 15

Bow Mooring Area (detail)









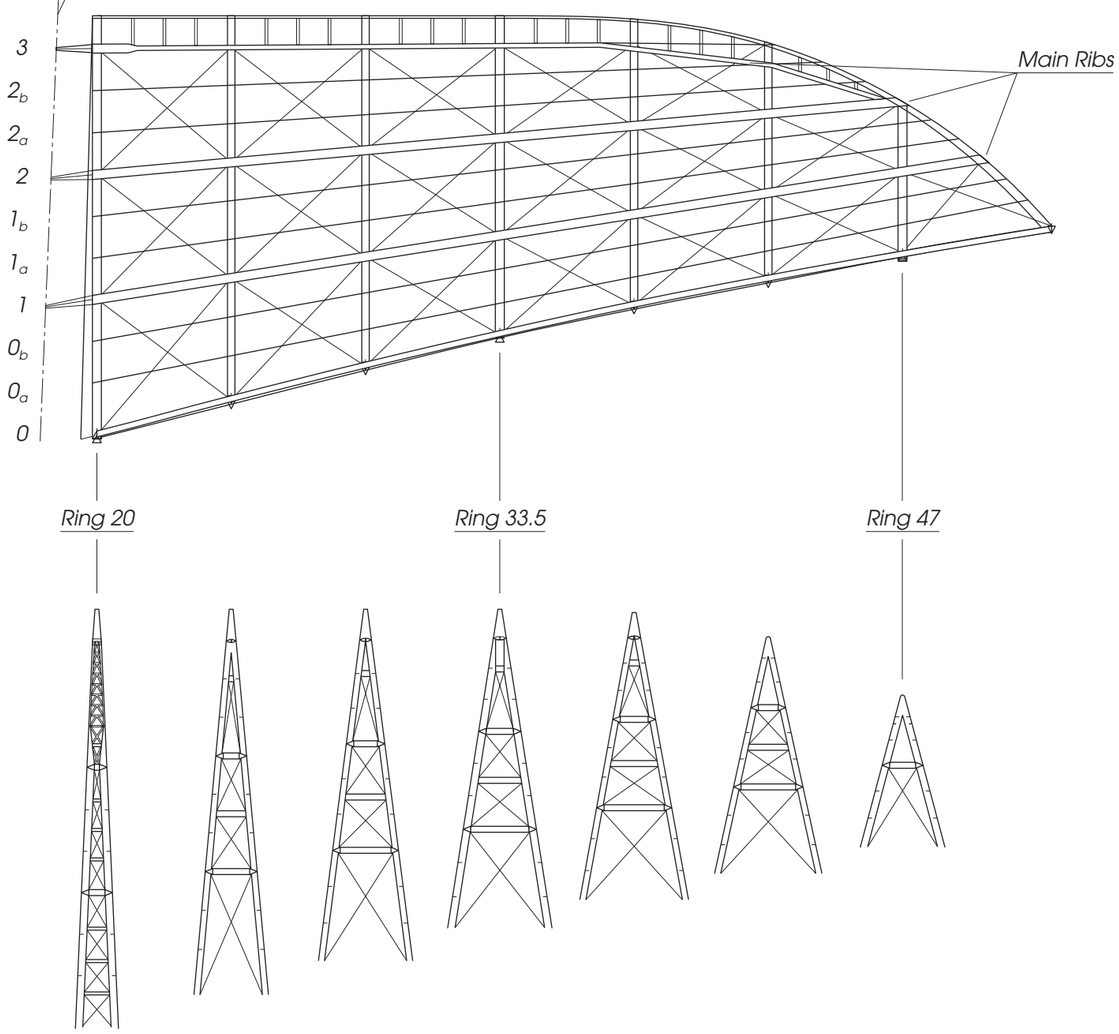
SCALE 1/100

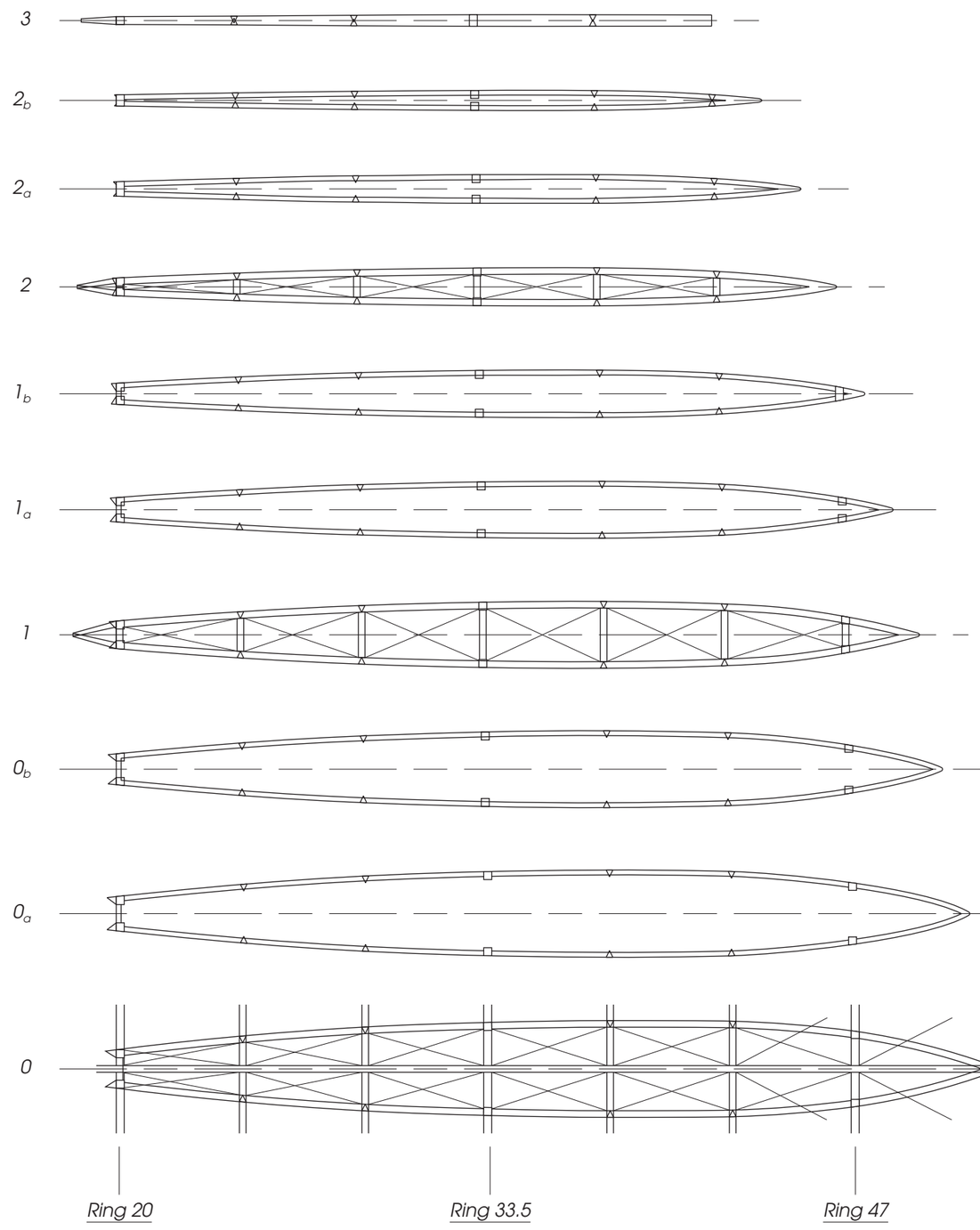
Tail Structure

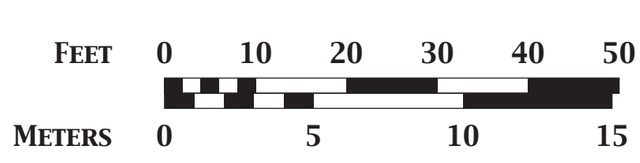
Main Ring construction of the Tail Fins is braced through the hull to the opposing Fin by the Tail Fin Cruciform Structure

Rudder/Elevator Hinge Line (angled 2° forward)

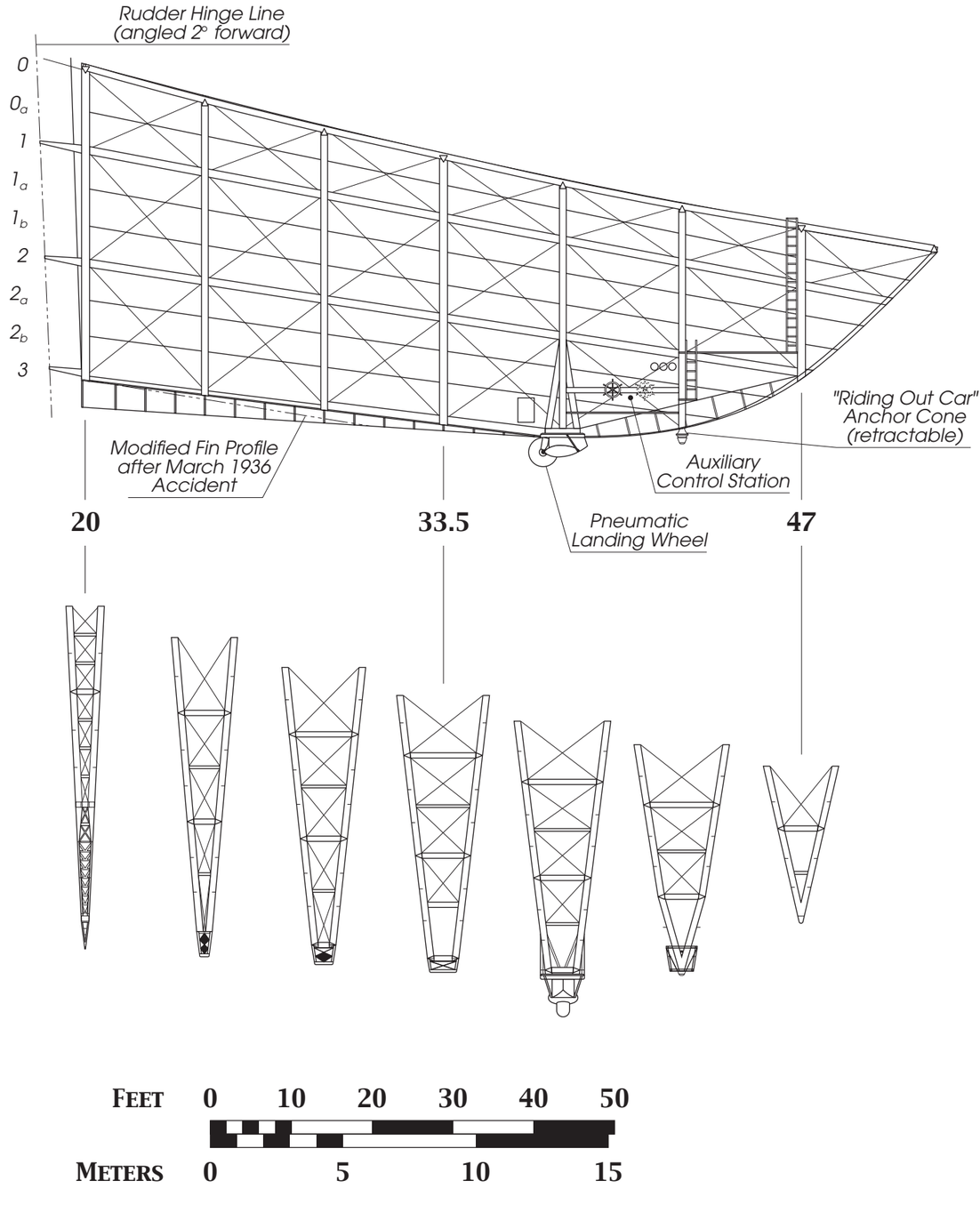
Main Ribs constructed using triangular girders; Intermediate ribs constructed using flat girders

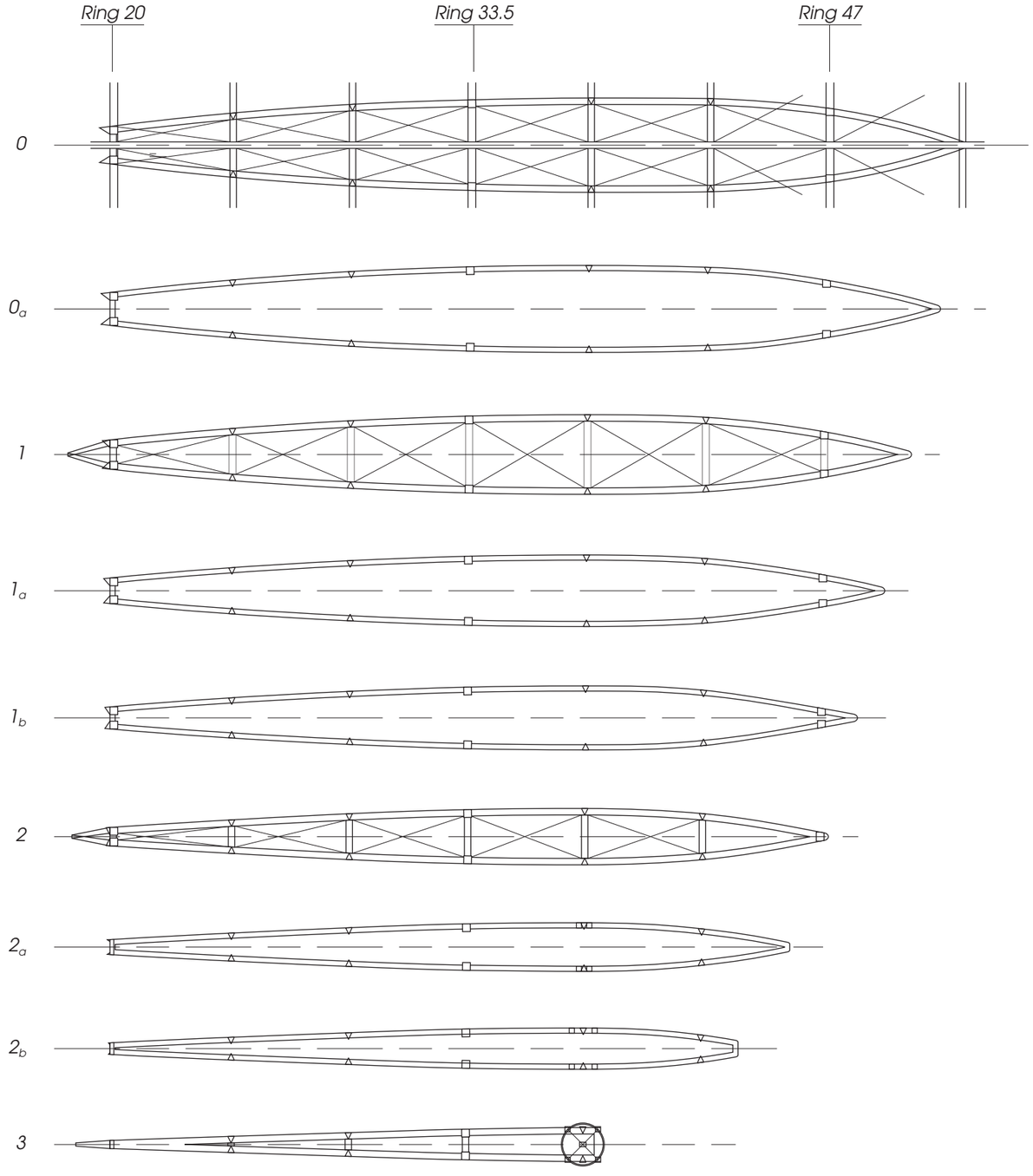




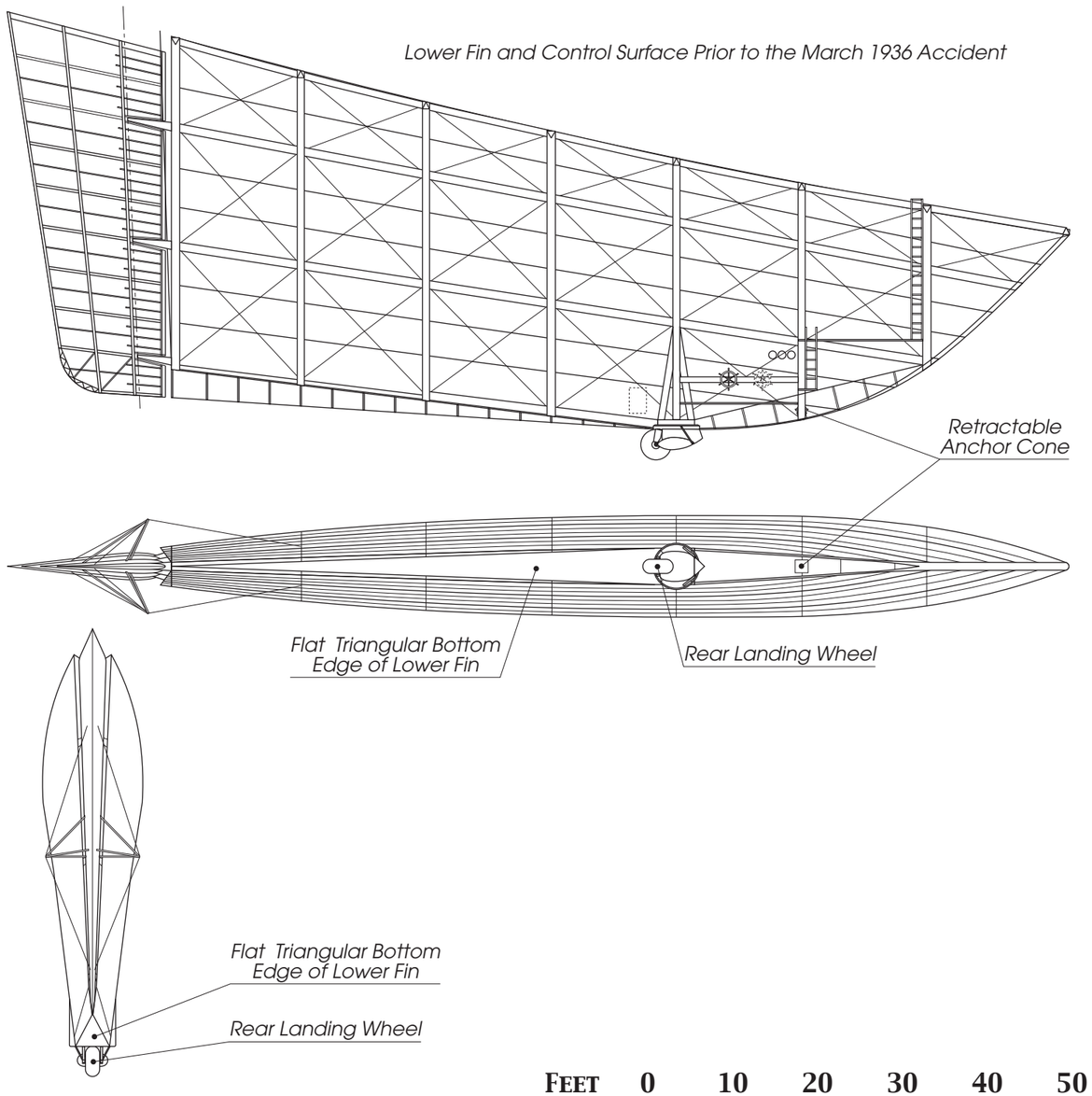


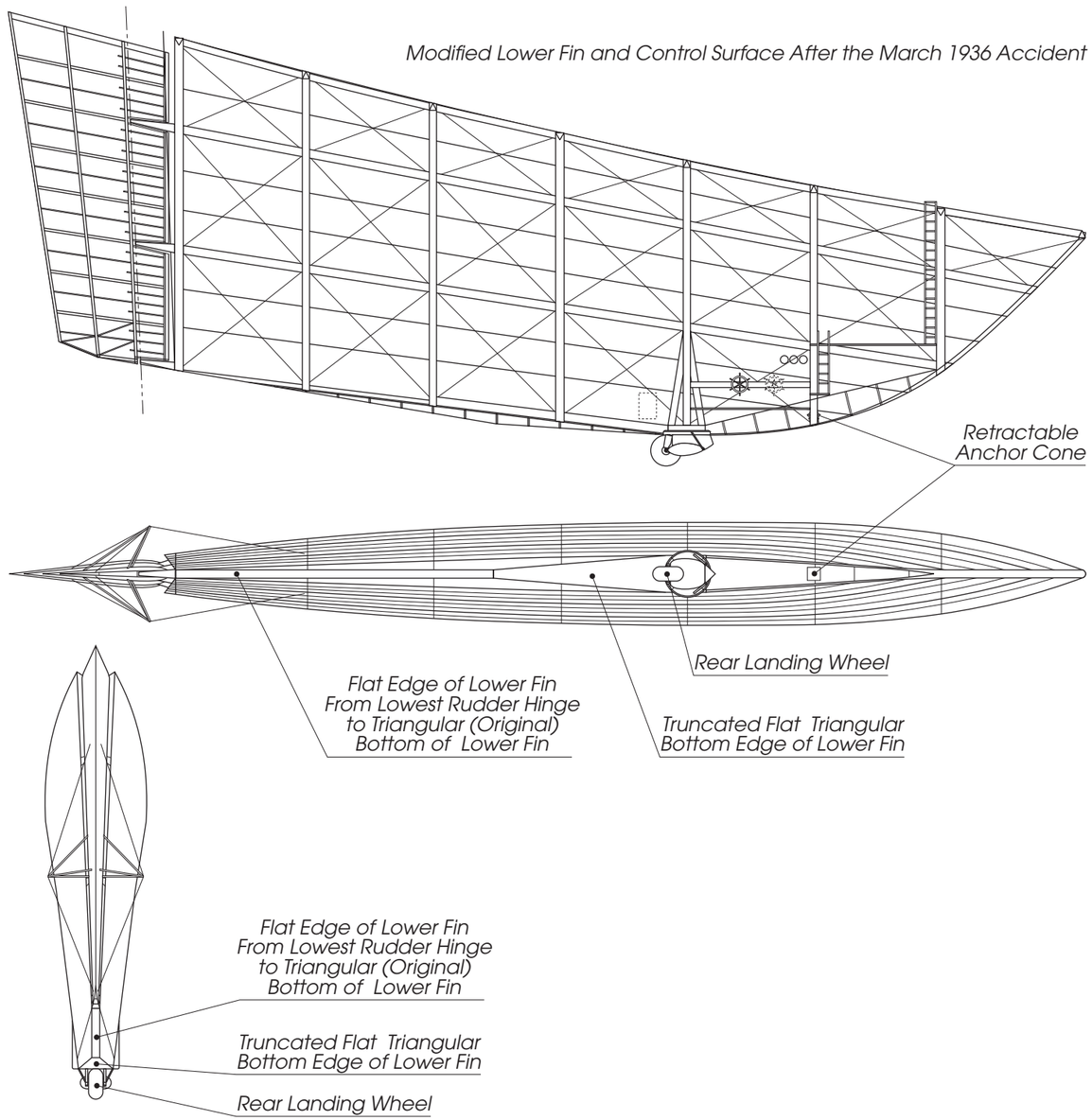
Lower Tail Structure

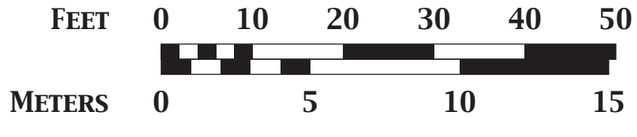




Lower Tail Structure
(Pre- and Post-March 1936 Modification)

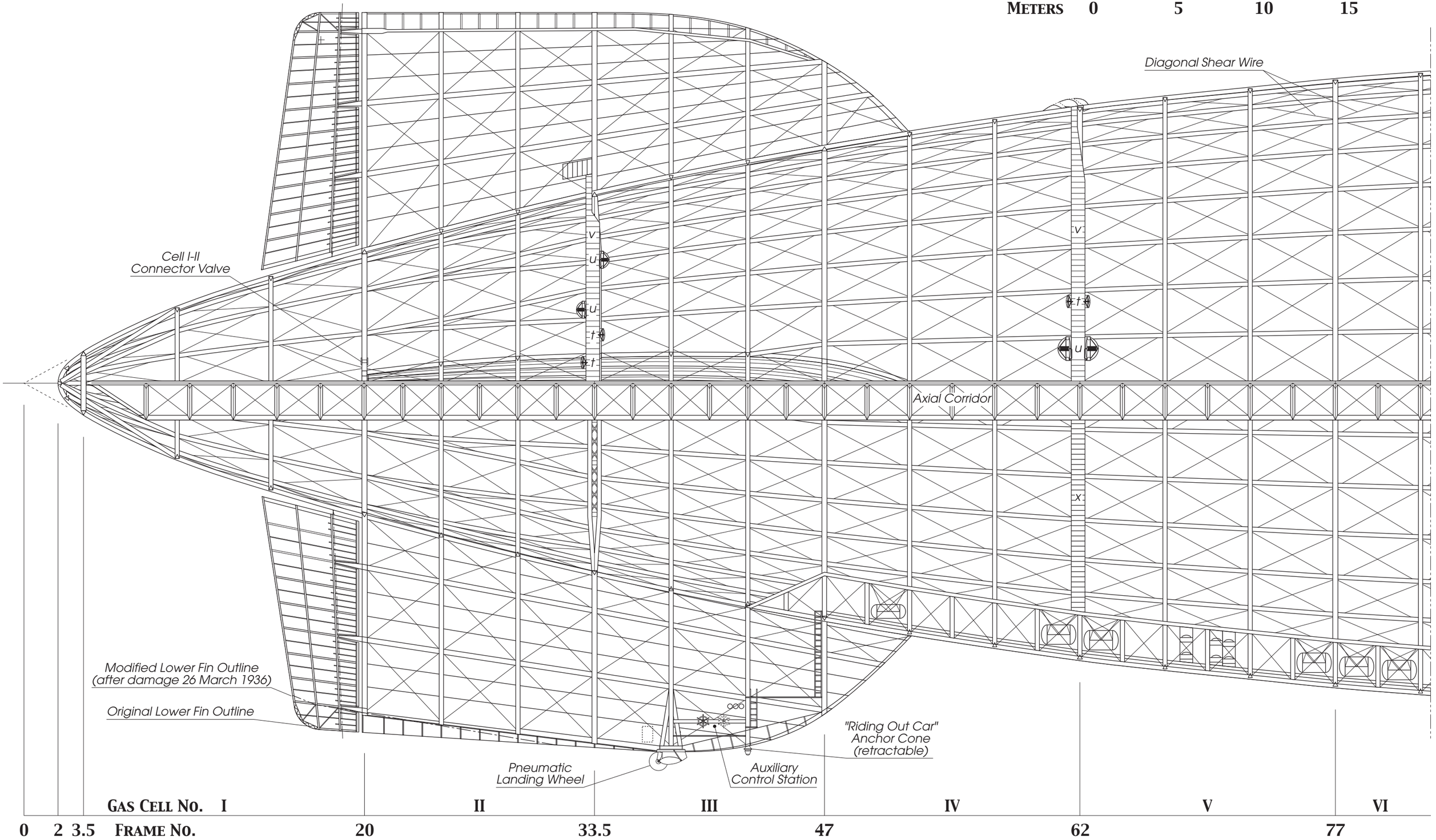






FEET 0 10 20 30 40 50

METERS 0 5 10 15

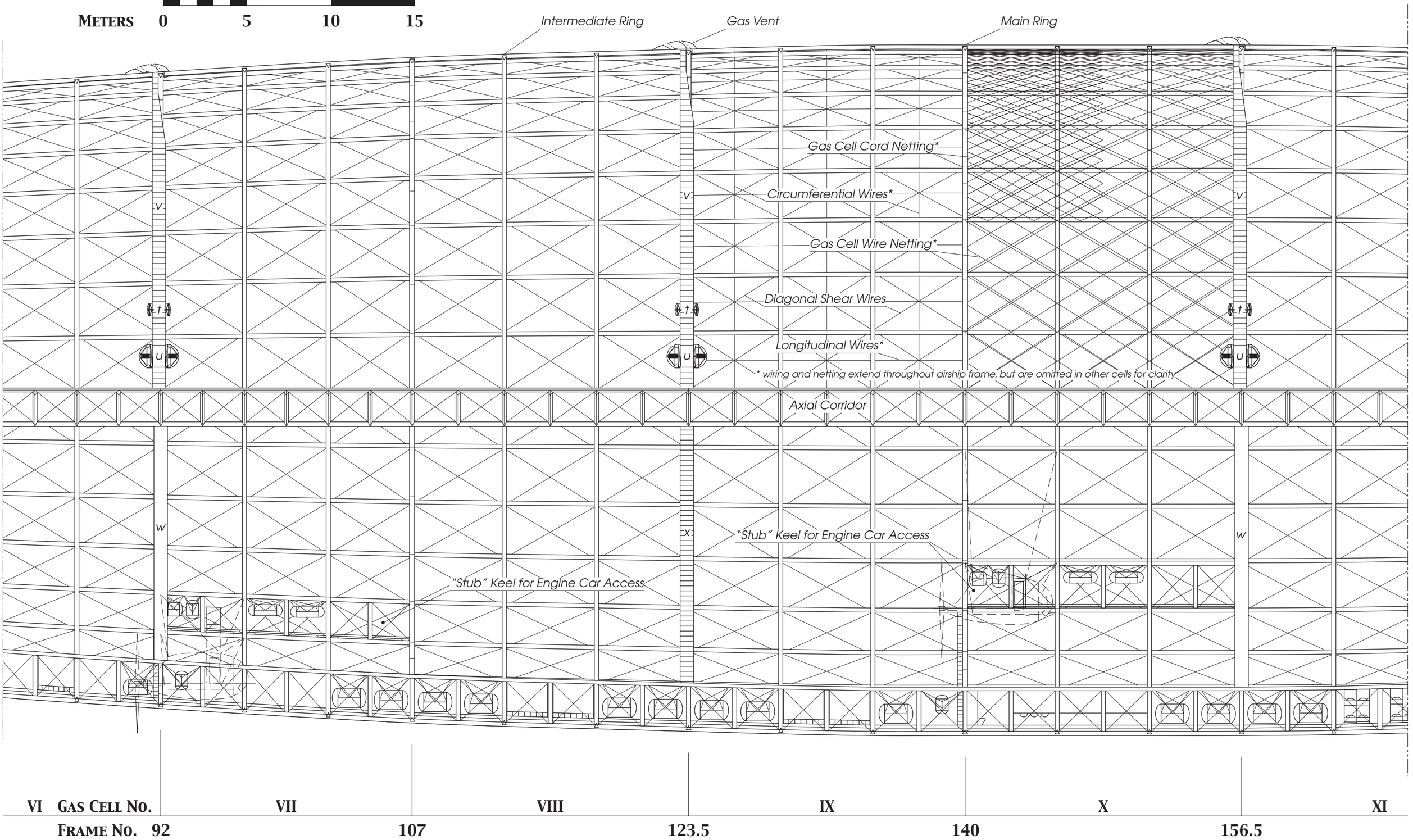


GAS CELL NO. I II III IV V VI

0 2 3.5 FRAME NO. 20 33.5 47 62 77

FEET 0 10 20 30 40 50

METERS 0 5 10 15



VI	GAS CELL NO.	VII	VIII	IX	X	XI
	FRAME NO. 92	107	123.5	140	156.5	

FEET 0 10 20 30 40 50

METERS 0 5 10 15

Cell XV-XVI Connector Valve

Nose Anchor Cone

Axial Corridor

Landing Rope

Passenger Area

Commander's Cabin

Directional Antennae

Kitchen

Pneumatic Landing Wheel

Embarking/ Disembarking Gangway

Crew's Mess

Officer's Mess

XI | GAS CELL NO. XII | XIII | XIV | XV | XVI

FRAME NO. 173 188 203 218 233 244.5 247

FEET 0 10 20 30 40 50

METERS 0 5 10 15

Axial Corridor*

* the axial corridor extends the length of the airship, but is omitted for clarity where it would obscure other details

s g a_4 a_1 a_2 f_2 x f_1 e

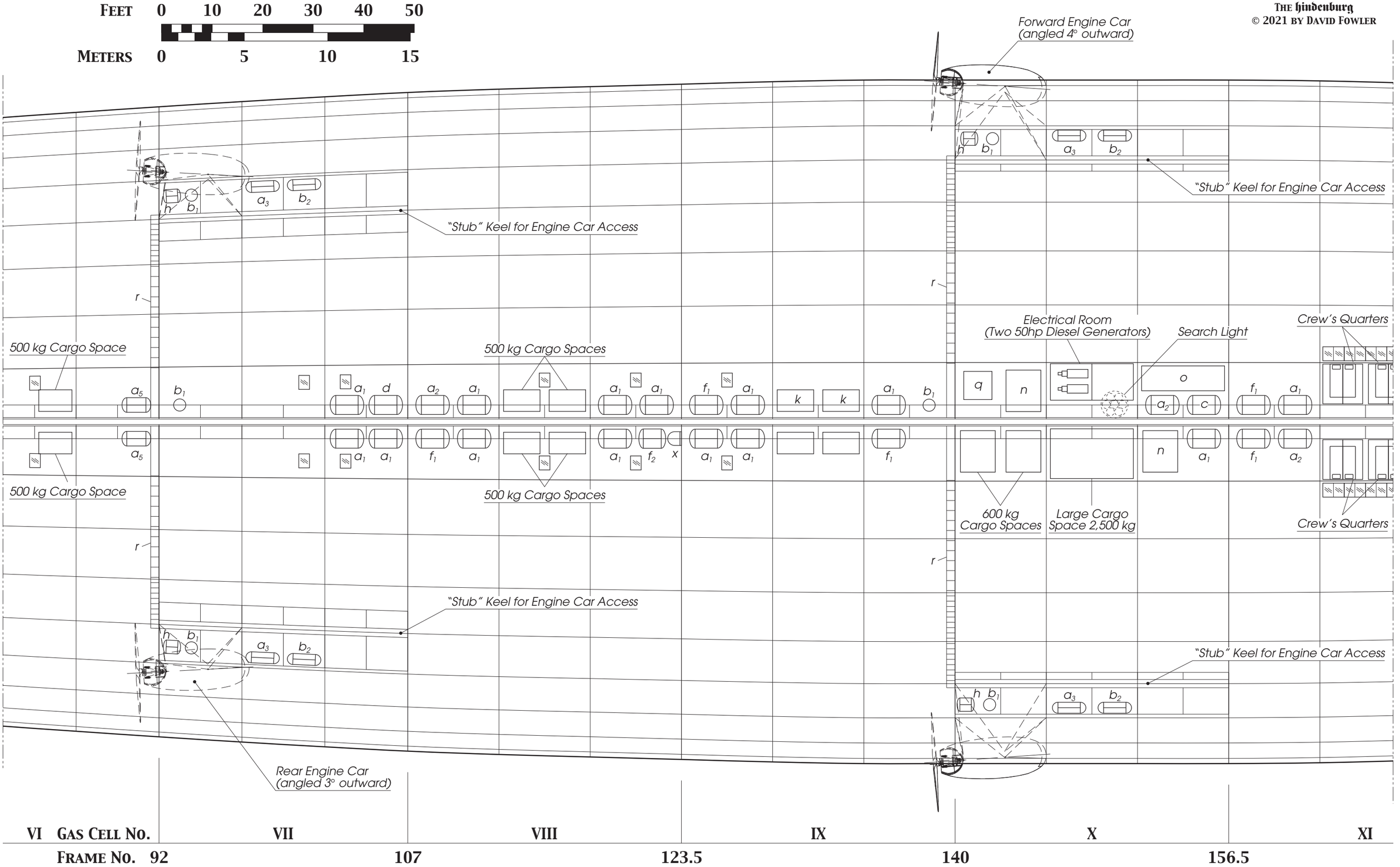
Crew's Quarters

GAS CELL NO. I II III IV V VI

0 2 3.5 FRAME NO. 20 33.5 47 62 77

FEET 0 10 20 30 40 50

METERS 0 5 10 15

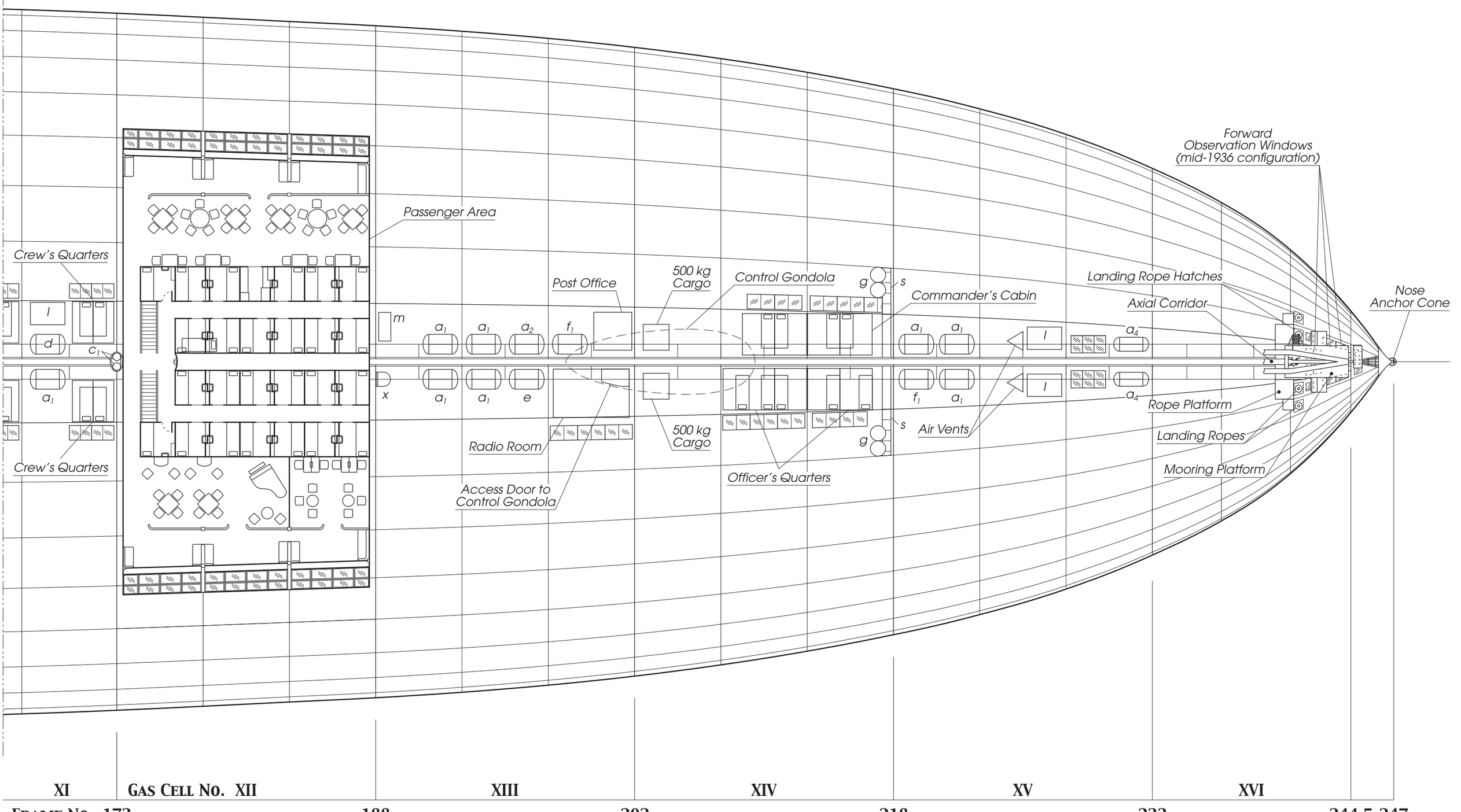


VI GAS CELL NO. VII VIII IX X XI

FRAME NO. 92 107 123.5 140 156.5

FEET 0 10 20 30 40 50

METERS 0 5 10 15



XI GAS CELL NO. XII XIII XIV XV XVI

FRAME NO. 173 188 203 218 233 244.5 247

Explanation of Letters on Longitudinal Cross Section and Plan Views

a_1	*Fuel Oil Barrels (2,500 liters) (28)*
a_2	*Fuel Oil Valve Barrels (2,500 Liters) (4)*
a_3	*Fuel Oil Operation Barrels (800 liters) (4)*
a_4	*Fuel Oil Barrels (1,250 liters) (4)*
a_5	*Fuel Oil Barrels (850 liters) (2)*
b_1	*Lubrication Oil Barrels (500 liters) (6)*
b_2	*Lubrication Oil Barrels (380 liters) (4)*
c	*Drinking Water Barrel (2,500 liters)*
c_1	*Passenger Drinking Water Barrels (200 Liters) (2) (elevated to maintain faucet pressure)*
d	*Fresh Water Barrels (2,500 liters) (2)*
e	*Waste Water Barrels (2,500 liters) (2)*
f_1	*Barrels for Recovered Ballast Water (2,500 liters) (9)*
f_2	*Barrels for Recovered Ballast Water (2,000 liters) (2)*
g	*Double Ballast Bags (500 liters) (4)*
h	*Cooling Water Barrels (400 liters) (4)*
i	*Baggage Room (500 kg) (2)*
k	*Spare Parts Storage Room (500 kg) (2)*
l	*Food/Storage Room (500 kg)*
m	*Food/Storage Room (250 kg)*
n	*Engineer's Room*
o	*Exhaust*
p	*Washroom and Toilet*
q	*Workshop*
r	*Access Way to Engine Cars (4)*
s	*Access Ways to Ballast Bags (4)*
t	*Maneuvering Valve (14)*
u	*Pressure Relief Valve (14)*
v	*Gas Shaft (7)*
w	*Ventilation Shaft (3)*
x	*Ladder Shafts (3)*
y	*Anchor Cones (2)*

Ring No. (meters)	*Diameter (meters)*	*Diameter (feet)*
2	0	0
2.5	2.2	7.06
3.5	3.8	12.38
9	9.1	29.75
14.5	12.7	41.78
20	15.9	52.17
24.5	18.3	59.92
29	20.5	67.31
33.5	22.6	74.24
38	24.6	80.61
42.5	26.3	86.43
47	28.0	91.78
52	29.6	97.25
57	31.2	102.25
62	32.6	106.96
67	33.8	110.76
72	34.8	114.12
77	35.8	117.45
82	36.6	120.08
87	37.3	122.38
92	38.0	124.60
97	38.6	126.64
102	39.2	128.53
107	39.7	130.25
112.5	40.1	131.56
118	40.4	132.55
123.5	40.7	133.53
129	41.0	134.51
134.5	41.2	135.17
140	41.2	135.17
145.5	41.2	135.17
151	41.2	135.17
156.5	41.2	135.17
162	41.1	134.84
167.5	40.8	133.91
173	40.4	132.55
178	39.9	131.02
183	39.4	129.40
188	38.9	127.78
193	38.3	125.69
198	37.5	122.99
203	36.4	119.56
208	35.1	115.28
213	33.5	110.07
218	31.6	103.67
223	29.3	96.13
228	26.4	86.61
233	22.4	73.49
237	18.5	60.70
241	13.0	42.65
244.5	5.9	19.63
246.5	0.8	2.60
247	0	0