



Stability calculation according to ISO 6185-3 and ISO 12217-1-2017

By Xiamen DAWN DESIGN

Company: 厦门道恩建筑设计有限公司

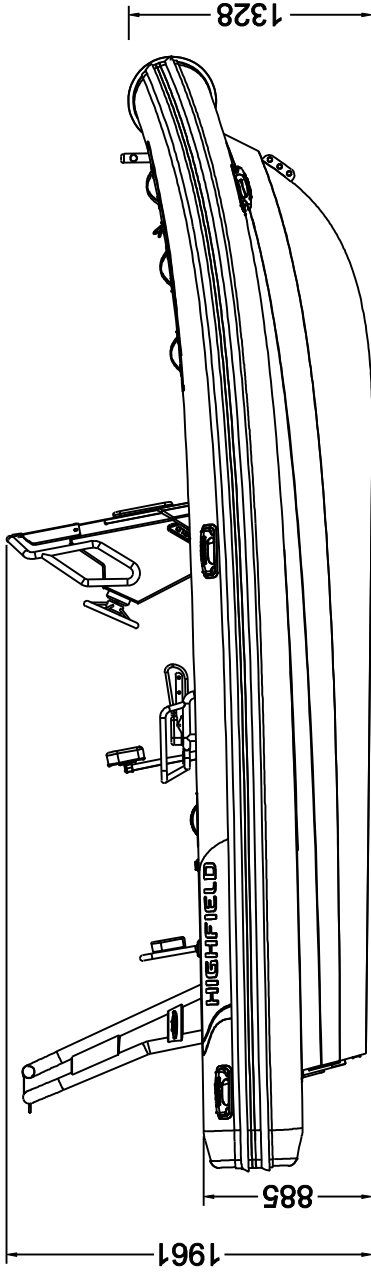
Address: 中国(福建)自由贸易试验区厦门片区翔云一路95号运通中心604B单元之五八八
604B-588 Yuntong Center, No.95 Xiangyunyilu road, Xiamen area of
China(Fujian) Pilot Free Trade Zone

Owner: 王弘涛

 DAWN YACHT DESIGN 厦门道恩建筑设计有限公司			ITEM		PROJECT:	PA 600
			PA 600		Cat.	cat. C
Signature			Stability calculations		PAPER	SCALE
Design by					A4	
Checked by					sheet	1
Technic by						
Approved by		DATE	2018.07			

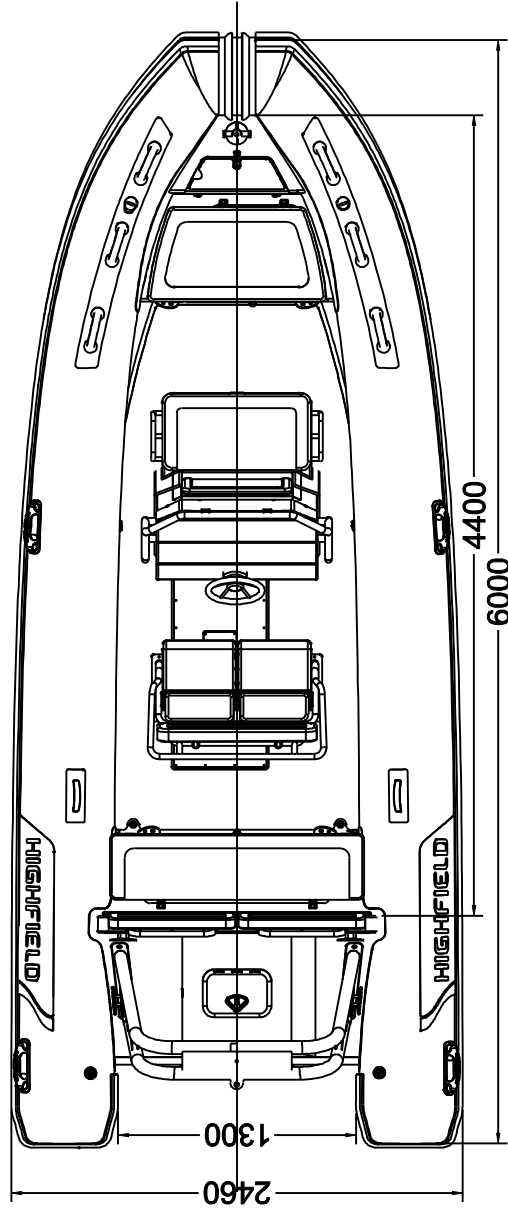
CONTENT

1. General Arrangement
2. Weight Estimation
3. Stability Calculation worksheet
4. Windage Area Calculation
5. Hydrostatics tables
6. Offset load test
7. Buoyancy Calculation
8. Crew area
9. Righting arm
- 10 Swamped waterline
- 11 Maximum power calculation



SPECIFICATION

Length	600cm
Beam	246cm
Inside Length	440cm
Inside Width	130cm
Weight	612Kg
Deadrise	26°
Max Pax	14
Max Load (incl.motor)	1478.5Kg
Recommended HP	135
Max HP	150
Shaft	XL
Tube φ	56-40cm
Airtight Chambers	6



DND
DAWN YACHT DESIGN

Signature	
Design by	S.C/L
Checked by	
Technic by	
Approved by	
DATE	2018.06

Drawing Title

General Arrangement

Project Name: PA600

Drawing NO.: PA60-01-01

	PAPER	SCALE
	A4	1:40
SHEET	1	of 1

PA 600 Weight estimation CAT.C

Loa(m) = 6.0 m
 Lh(m) = 6.0 m
 Bmax (m) = 2.5 m

HULL		Weight	XG (m)	YG(m)	ZG(m)	Mx	My	Mz	NOTE
Hull Plates		302.0	2.12	0.00	0.42	640.24	0.00	126.84	
Structures		200.0	2.00	0.00	0.25	400.00	0.00	50.00	Included fuel tank
Console		33.0	2.70	0.00	1.20	89.10	0.00	39.60	
seat		17.0	0.90	0.00	0.85	15.30	0.00	14.45	
rollbar		20.0	0.05	0.00	1.35	1.00	0.00	27.00	
Inflatable tube		40.0	2.20	0.00	0.75	88.00	0.00	30.00	
TOT.	612.0		2.02	0.00	0.47	1233.64	0.00	287.89	

Fixed MACHINERY									
battery		20.5	2.30	0.00	0.40	47.15	0.00	8.20	
Cables		9.5	2.00	0.00	0.30	19.00	0.00	2.85	
TOT.	30.0		2.21	0.00	0.37	66.15	0.00	11.05	

Tot. Empty Craft		642.0	2.02	0.00	0.47	1299.79	0.00	298.94	
-------------------------	--	--------------	-------------	-------------	-------------	----------------	-------------	---------------	--

Standard Equipment									
Outboard		260.7	-0.50	0.00	1.00	-130.35	0.00	260.70	150hp
Dry bag		10.0	4.20	0.00	0.40	42.00	0.00	4.00	
Foot pump		2.0	4.25	0.00	0.38	8.50	0.00	0.76	
Paddles		3.0	2.00	0.00	0.95	6.00	0.00	2.85	
Repair kit		5.0	4.20	0.00	0.60	21.00	0.00	3.00	
TOT.	280.7		-0.19	0.00	0.97	-52.85	0.00	271.31	

Additional eq.									
LIFEJACKETS		8.0	4.20	0.00	0.55	33.60	0.00	4.40	
Others not in standard equipment		7.0	2.60	0.00	0.65	18.20	0.00	4.55	
TOT. Addition	15.0		3.45	0.00	0.60	51.80	0.00	8.95	

Liferaft		103.0	0.35	0.00	1.10	36.05	0.00	113.30	
----------	--	-------	------	------	------	-------	------	--------	--

Light Craft									
	Empty Craft	642.0	2.02	0.00	0.47	1299.79	0.00	298.94	
	standard eq.	280.7	-0.19	0.00	0.97	-52.85	0.00	271.31	
Light Craft	Tot.	922.7	1.35	0.00	0.62	1246.94	0.00	570.25	

Minimum Operating condition									
	Light craft	922.7	1.35	0.00	0.62	1246.94	0.00	570.25	
	additonal eq	15.0	3.45	0.00	0.60	51.80	0.00	8.95	
	liferaft	103.0	0.35	0.00	1.10	36.05	0.00	113.30	
	1passengers+crews	75.0	2.00	0.00	1.30	150.00	0.00	97.50	
Minimum Operating condition	Tot.	1115.7	1.33	0.00	0.71	1484.79	0.00	790.00	

0.05
0.76

FULL LOAD									
	light craft	922.7	1.35	0.00	0.62	1246.94	0.00	570.25	
	150 FUEL	106.9	2.45	0.00	0.30	261.84	0.00	32.06	
	15 drinking water	14.3	0.80	0.00	0.55	11.40	0.00	7.84	
	personal prov.	15.0	0.85	0.00	0.50	12.75	0.00	7.50	
	additonal eq	15.0	3.45	0.00	0.60	51.80	0.00	8.95	
	liferaft	103.0	0.35	0.00	1.10	36.05	0.00	113.30	
	14passengers+crews	1050.0	2.51	0.00	0.90	2635.50	0.00	945.00	

FULL LOAD	Tot.	2226.8	1.91	0.00	0.76	4256.28	0.00	1684.90	
------------------	-------------	---------------	-------------	-------------	-------------	---------	------	---------	--

0.05

0.81

Loaded Arrival									
	light craft	922.7	1.35	0.00	0.62	1246.94	0.00	570.25	
	150 FUEL	11.3	2.45	0.00	0.10	27.56	0.00	1.13	
	15 drinking water	1.5	0.80	0.00	0.55	1.20	0.00	0.83	
	personal prov.	15.0	0.85	0.00	0.45	12.75	0.00	6.75	
	additonal eq	15.0	3.45	0.00	0.60	51.80	0.00	8.95	
	liferaft	103.0	0.35	0.00	1.10	36.05	0.00	113.30	
	14 passengers+crews	1050.0	2.51	0.00	0.90	2635.50	0.00	945.00	
Loaded Arrival	Tot.	2118.5	1.89	0.00	0.78	4011.80	0.00	1646.20	

0.05

0.83

Crews									
	crew no.								
	1.0	85.0	1.06	0.03	0.90	90.10	2.21	76.50	
	2.0	85.0	1.06	0.55	0.90	90.10	46.75	76.50	
	3.0	85.0	2.12	-0.26	0.90	180.20	-22.10	76.50	
	4.0	85.0	2.12	0.25	0.90	180.20	21.25	76.50	
	5.0	85.0	1.56	0.75	0.90	132.60	63.75	76.50	
	6.0	85.0	2.12	0.77	0.90	180.20	65.45	76.50	
	7.0	85.0	2.67	0.75	0.90	226.95	63.75	76.50	
	8.0	85.0	3.19	0.73	0.90	271.15	62.05	76.50	
	9.0	85.0	3.70	0.57	0.90	314.50	48.45	76.50	
	10.0	85.0	4.38	0.28	0.90	372.30	23.80	76.50	
	11.0	85.0	3.39	0.14	0.90	288.15	11.90	76.50	
	12.0	85.0	3.90	0.10	0.90	331.50	8.50	76.50	
	13.0	85.0	3.58	-0.34	0.90	304.30	-28.90	76.50	
	14.0	85.0	4.32	-0.25	0.90	367.20	-21.25	76.50	
Tot. Crews		1190.0	2.80	0.29	0.90	3329.45	345.61	1071.00	

Crew offset test condition									
	light craft	922.7	1.35	0.00	0.62	1246.94	0.00	570.25	
	150 FUEL	106.9	2.45	0.00	0.30	261.84	0.00	32.06	
	15 drinking water	14.3	0.80	0.00	0.55	11.40	0.00	7.84	
	personal prov.	15.0	0.85	0.00	0.45	12.75	0.00	6.75	
	additonal eq	15.0	3.45	0.00	0.60	51.80	0.00	8.95	
	liferaft	103.0	0.35	0.00	1.10	36.05	0.00	113.30	
	14 passengers+crews	1190.0	2.80	0.29	0.90	3329.45	345.61	1071.00	
Crew offset test condition	Tot.	2366.8	2.09	0.15	0.76	4950.23	345.61	1810.15	
				additonal	0.05				
	Tot.	2366.8	2.09	0.15	0.81	4950.23	345.61	1810.15	

**ISO 12217-1 NON-SAILING BOATS OF LENGTH GREATER THAN OR EQUAL TO 6m
CALCULATION WORKSHEET No. 1**

Highfield Boats Co., Ltd PA 600

Design Category intended: C		Monohull / multihull: Monohull			
Item	Symbol	Unit	Value	Ref.	
Length of hull as in ISO 8666	L_H	m	6.00	3.3.1	
Length of waterline in loaded arrival condition	L_W	m	5.08	3.3.2	
<u>Empty Craft condition mass</u>	m_{EC}	kg	642.0	3.4.1	
standard equipment		kg	280.7	3.5.12	
water ballast in tanks which are notified in the owner's manual to be filled when the boat is afloat		kg	0.0	3.4.2	
Light craft condition mass	m_{LC}	kg	922.7	3.4.2	
Mass of:					
Desired crew limit	CL	----	14	3.5.3	
Mass of:					
desired crew limit at 75 kg each		kg	1050.0		
provisions + personal effects		kg	15.0	3.4.4	
drinking water		kg	14.3	3.4.4	
fuel		kg	106.9	3.4.4	
lubricating and hydraulic oils		kg	0.0	3.4.4	
black water		kg	0.0	3.4.4	
grey water		kg	0.0	3.4.4	
water ballast		kg	0.0	3.4.4	
other fluids carried aboard		kg	0.0	3.4.4	
stores, spare gear and cargo (if any)		kg	0.0	3.4.4	
optional equipment and fittings not included in basic outfit		kg	15.0	3.4.4	
inflatable life raft(s) in excess of essential safety equipment		kg	103.0	3.4.4	
other small boats carried aboard		kg	0.0	3.4.4	
margin for future additions		kg	0.0	3.4.4	
Maximum load = sum of above masses	m_L	kg	1304.1	3.4.4	
<u>Maximum Load condition mass</u>	m_{LDC}	kg	2226.8	3.4.5	
mass to be removed for loaded arrival condition		kg	108.4	3.4.6	
<u>Loaded Arrival condition mass</u>	m_{LA}	kg	2118.5	3.4.6	
Mass of:					
minimum number of crew according to 3.4.3		kg	75.0	3.4.3a)	
non-consumable stores and equipment normally aboard		kg	15.0	3.4.3b)	
inflatable life raft		kg	103.0	3.4.3	
Load to be included in Minimum Operating Condition	m'_L	kg	193.0	3.4.3	
<u>Light craft condition mass</u>	m_{LC}	kg	922.7	3.4.2	
Mass in the Minimum Operating Condition	m_{MO}	kg	1115.7	3.4.3	
Is boat sail or non-sail?					3.1.2
nominal sail area	A_S	m ²	0.0	3.3.8	
sail area / displacement ratio = $A_S / (m_{LDC})^{2/3}$		----	0.0000	3.1.2	
CLASSIFIED AS [non-sail if $A_S / (m_{LDC})^{2/3} < 0.07$]		SAIL/NON-SAIL ?	NON-SAIL	3.1.2	

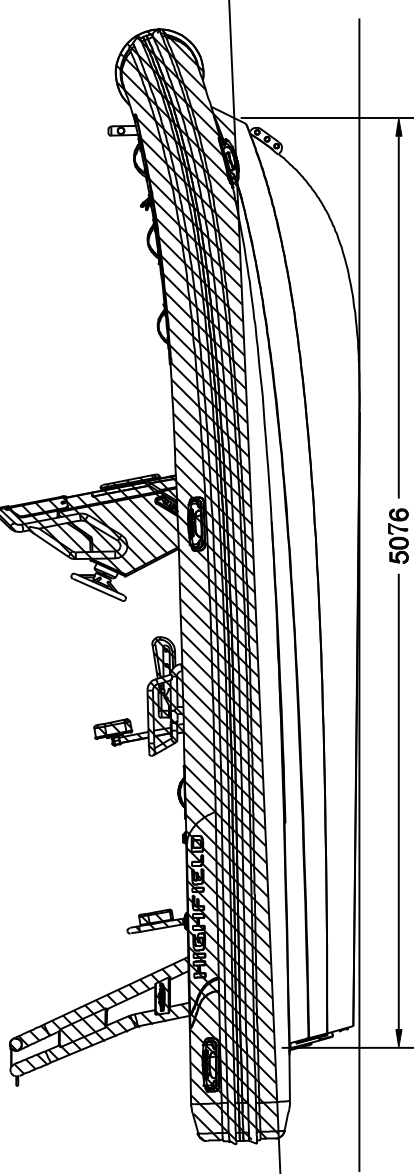
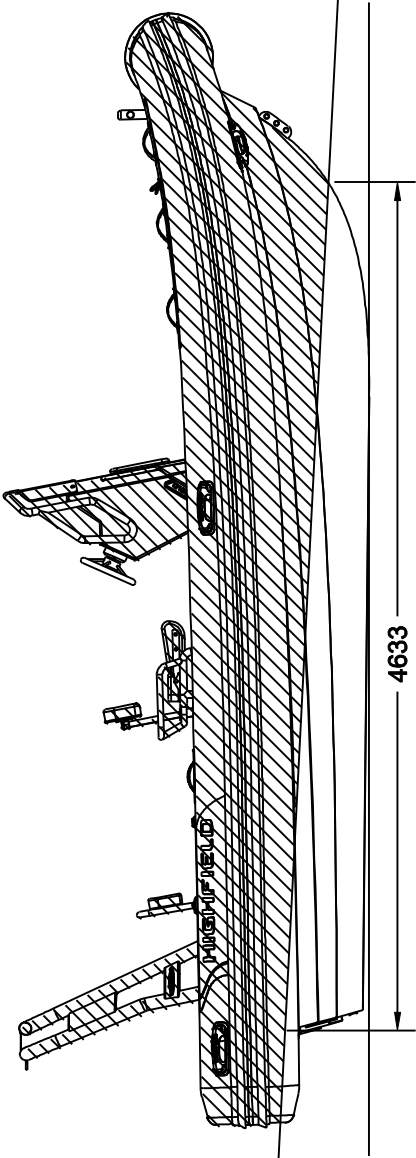
NB If NON SAIL, continue using these worksheets, if SAIL, use ISO 12217-2

mMo

1. Calculation AT mMo

Item	Symbol	Unit	Value
Windage area	A_{LV}	m ²	4.43
Waterline length of hull	L_{WL}	m	4.63
Beam of hull	B_H	m	2.46
Ratio of $A_{LV}/(0.5L_{WL} \cdot B_H)$		-	$\approx 0.78 < 1$

Heel due to wind calculation is not required.



mLA

2. Calculation AT mLA

Item	Symbol	Unit	Value
Windage area	A_{LV}	m ²	3.16
Waterline length of hull	L_{WL}	m	5.08
Beam of hull	B_H	m	2.46
Ratio of $A_{LV}/(0.5L_{WL} \cdot B_H)$		-	$\approx 0.50 < 1$

<h1 style="margin: 0;">DND</h1> <p style="margin: 0;">DAWN YACHT DESIGN</p>	Signature	
	Design by	S.C/L
	Checked by	
	Technic by	
	Approved by	
	DATE	2018.7.11

Drawing Title

Windage Area

Project Name: PA600

Drawing NO.: PA60-01-04

PAPER	SCALE
A4	1:40
SHEET	1 of 1

PA 600 Hydrostatic tables

Draft m	Displ. kg	LCB m	TCB m	VCB m	Wet Area m ²	Awp m ²	LCF m	TCF m	VCF m	BMT m	BMI m	Cb	Cwp	Cws	Cvp
0.100	75.074	1.731	0.00	0.068	1.685	1.466	1.731	0.00	0.100	0.255	24.401	0.362	0.727	3.019	0.498
0.120	108.028	1.734	0.00	0.081	2.026	1.747	1.749	0.00	0.120	0.293	20.706	0.364	0.727	3.003	0.501
0.140	146.782	1.739	0.00	0.094	2.371	2.031	1.763	0.00	0.140	0.331	18.096	0.365	0.726	2.997	0.502
0.160	191.417	1.746	0.00	0.107	2.726	2.320	1.773	0.00	0.160	0.371	16.170	0.361	0.720	2.986	0.502
0.180	242.076	1.752	0.00	0.120	3.117	2.642	1.765	0.00	0.180	0.437	14.971	0.299	0.603	3.021	0.495
0.200	302.213	1.745	0.00	0.134	3.761	3.201	1.692	0.00	0.200	0.665	14.522	0.304	0.661	3.247	0.460
0.220	372.555	1.736	0.00	0.149	4.276	3.636	1.706	0.00	0.220	0.768	13.158	0.311	0.685	3.311	0.453
0.240	450.947	1.733	0.00	0.163	4.720	4.001	1.727	0.00	0.240	0.821	12.057	0.317	0.692	3.309	0.457
0.260	536.644	1.733	0.00	0.177	5.151	4.351	1.745	0.00	0.260	0.865	11.175	0.321	0.696	3.299	0.462
0.280	629.520	1.736	0.00	0.190	5.593	4.708	1.756	0.00	0.280	0.914	10.520	0.284	0.610	3.296	0.465
0.300	731.034	1.737	0.00	0.204	6.166	5.177	1.737	0.00	0.300	1.061	10.215	0.304	0.663	3.361	0.458
0.320	841.185	1.738	0.00	0.218	6.652	5.546	1.757	0.00	0.320	1.104	9.506	0.324	0.703	3.371	0.462
0.340	958.162	1.742	0.00	0.232	7.083	5.848	1.790	0.00	0.340	1.098	8.837	0.344	0.733	3.353	0.469
0.360	1080.839	1.750	0.00	0.245	7.477	6.104	1.825	0.00	0.360	1.069	8.272	0.363	0.758	3.324	0.479
0.380	1208.434	1.760	0.00	0.258	7.845	6.328	1.860	0.00	0.380	1.030	7.798	0.381	0.778	3.290	0.489
0.400	1339.715	1.769	0.00	0.271	9.309	6.070	1.864	0.00	0.400	1.100	8.130	0.299	0.556	3.557	0.537
0.420	1451.933	1.771	0.00	0.282	11.961	4.870	1.649	0.00	0.420	1.122	8.061	0.292	0.422	4.353	0.691
0.440	1541.033	1.746	0.00	0.291	14.117	4.047	1.059	0.00	0.440	1.215	4.535	0.287	0.340	4.972	0.843
0.460	1628.630	1.711	0.00	0.299	14.911	4.484	1.125	0.00	0.460	1.378	4.894	0.283	0.368	5.099	0.769
0.480	1724.725	1.680	0.00	0.309	15.647	4.876	1.195	0.00	0.480	1.496	5.229	0.282	0.393	5.191	0.718
0.500	1828.497	1.655	0.00	0.319	16.339	5.233	1.266	0.00	0.500	1.578	5.533	0.282	0.415	5.257	0.681
0.520	1939.458	1.634	0.00	0.330	17.040	5.596	1.324	0.00	0.520	1.636	5.837	0.284	0.438	5.316	0.649
0.540	2057.559	1.618	0.00	0.341	17.673	5.912	1.388	0.00	0.540	1.669	6.054	0.287	0.457	5.346	0.628
0.560	2181.536	1.607	0.00	0.353	18.340	6.165	1.459	0.00	0.560	1.683	6.163	0.291	0.473	5.381	0.616
0.580	2310.388	1.601	0.00	0.365	19.003	6.390	1.528	0.00	0.580	1.682	6.217	0.295	0.486	5.411	0.607
0.600	2443.595	1.599	0.00	0.378	19.656	6.590	1.595	0.00	0.600	1.669	6.232	0.300	0.497	5.432	0.602
0.620	2580.616	1.600	0.00	0.390	20.303	6.762	1.659	0.00	0.620	1.644	6.214	0.303	0.505	5.436	0.600
0.640	2720.852	1.605	0.00	0.402	20.943	6.903	1.720	0.00	0.640	1.610	6.158	0.308	0.514	5.456	0.600
0.660	2863.282	1.613	0.00	0.415	21.619	6.957	1.796	0.00	0.660	1.566	5.999	0.314	0.517	5.485	0.608
0.680	3006.575	1.623	0.00	0.427	22.246	7.006	1.866	0.00	0.680	1.516	5.857	0.320	0.520	5.503	0.615
0.700	3150.599	1.636	0.00	0.439	22.872	7.028	1.934	0.00	0.700	1.461	5.705	0.325	0.521	5.522	0.624

PA600 Offset load test -cat. C

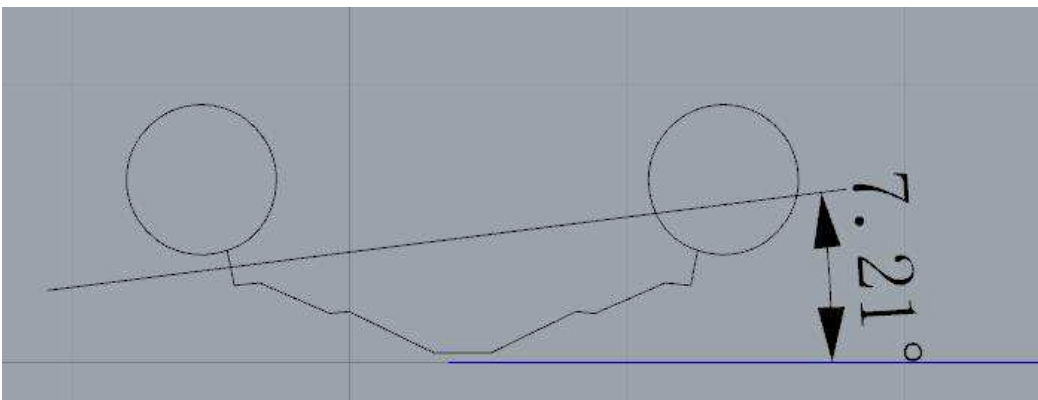
1.General

Length Overall, LOA	6.000	m
$L_H =$	6.000	m
Beam Overall, Boa	2.460	m
Depth Overall, D	1.328	m
Waterline Length, Lwl	5.771	m
Waterline Beam, Bwl	2.231	m
Navigational Draft, T	0.693	m
Displacement Weight	2366.800	kgf
Volume	2.307	m ³
LCG	2.090	m
TCG	0.150	m
VCG	0.810	m
Fluid Density	1025.000	kg/m ³
LCB	2.119	m
TCB	0.202	m
VCB	0.401	m
Wetted Surface Area	19.347	m ²
Waterplane Area, Awp	6.528	m ²
LCF	2.091	m
TCF	0.229	m
Weight To Immerse	66.974	kgf/cm
Cb	0.258	
Cvp	0.510	
Cwp	0.507	
Cws	5.302	
I(transverse)	3.010	m ⁴
I(longitudinal)	18.517	m ⁴
BMt	1.305	m
BMI	8.026	m
GMt	0.892	m
GMI	7.613	m
Mt	1.085	m
MI	7.807	m

2.Heel angle requirement

During the test , the heel angle Φ_o shall be not greater than

$$11.5 + \frac{(24 - L_H)^3}{520} \quad 22.72^\circ$$



As shown from the graph , the real heel angle $\Phi_o =$

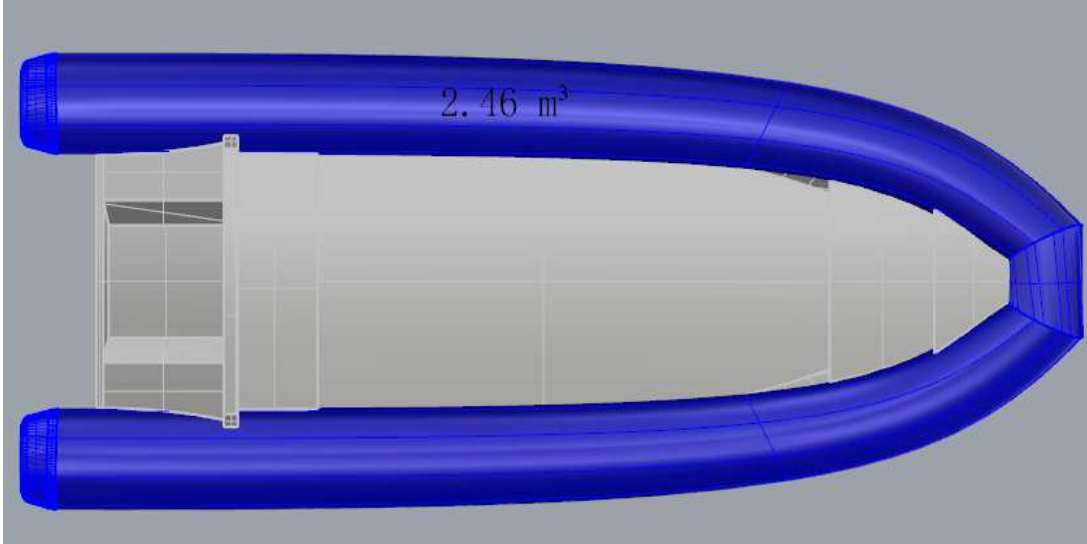
$$7.21^\circ < 22.72^\circ$$

Result:

PASS

PA 600 Buoyancy

Inflatable Buoyancy tube: 2.46 m³ (3.5)
 Permanent sealed buoyancy: 0 m³ (3.8)



Inherent buoyancy of the rigid parts of the boat:

	0.227 m ³
	0.087 m ³
Total	0.314 m ³

Alluminium mass: 612 Kg
 outboard engine mass 260.7 Kg

Table 4 — Material densities

Material	Density kg/m ³
Aluminium alloys	2 700

$v = \frac{m}{\rho}$

- v is the volume of an element, expressed in m³;
- m is the mass of that element, expressed in kg;
- ρ is the density of that element, expressed in kg/m³, as given in [Table 4](#).

TOTAL BUOYANCY: 2.774 m³

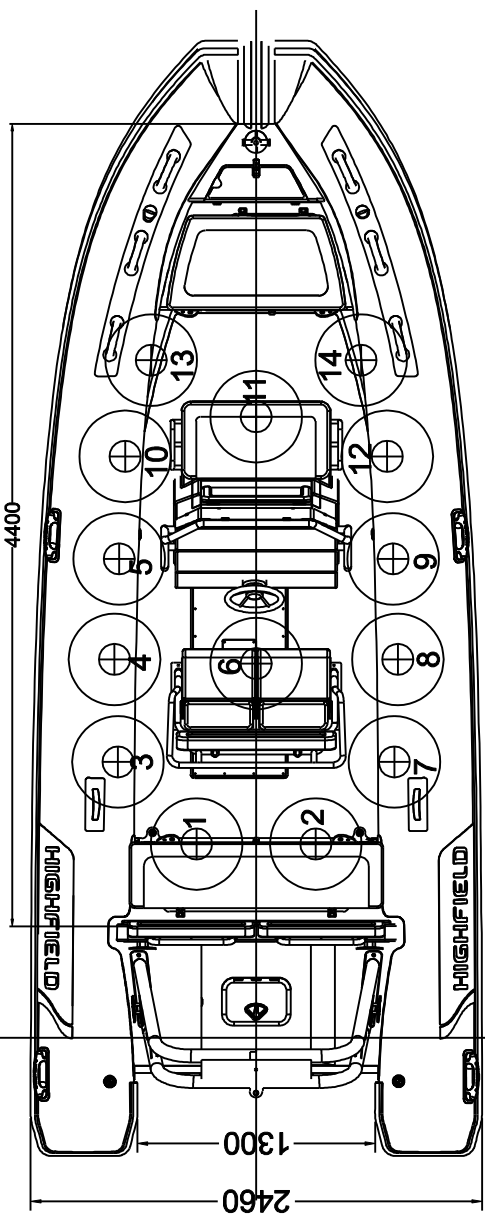
The total buoyant volume in m³ (V) shall be as follows:

$$V > \frac{k \times m_{LDC}}{1000}$$

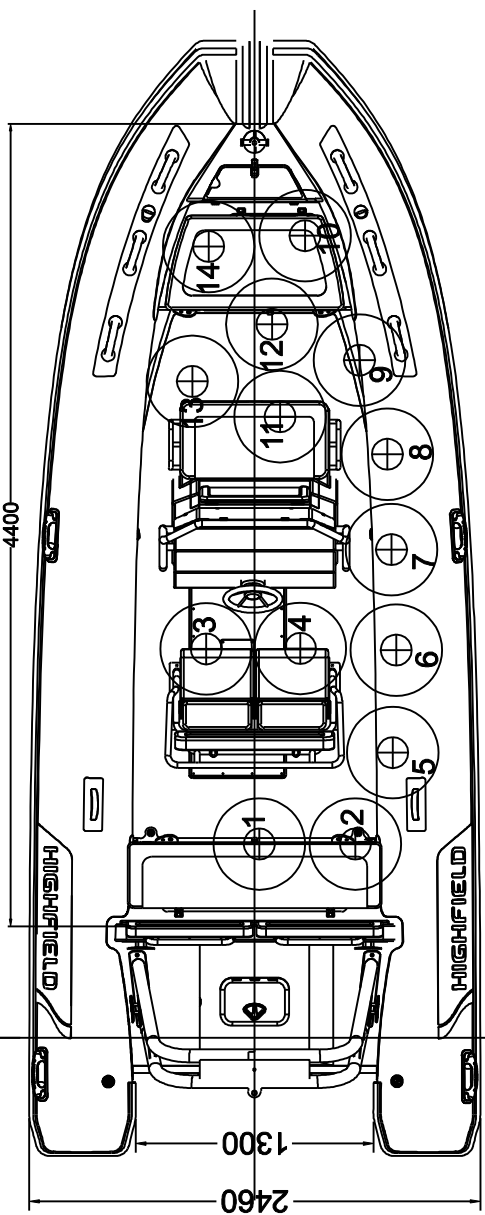
Where k is:

- 1,33 for boats assessed to design category B;
- 1,2 for boats assessed to design category C;

cat C mLDC= 2226.8 Kg 1,2xmLDC/1000= 2.672 < 2.774
 OK



NAVIGATION SEATS



CREW OFFSET TEST

SPECIFICATION

Crew Area 5.02 m²
 Max Pax 14



Signature	
Design by	S.C/L
Checked by	
Technic by	
Approved by	
DATE	2017.10

Drawing Title

Crew Area

Project Name: PA600

Drawing NO.: PA60-01-08

PAPER	A4	SCALE	1:40
SHEET	1	of	1

PA600 Righting Arm (Minimum operating)-cat. C

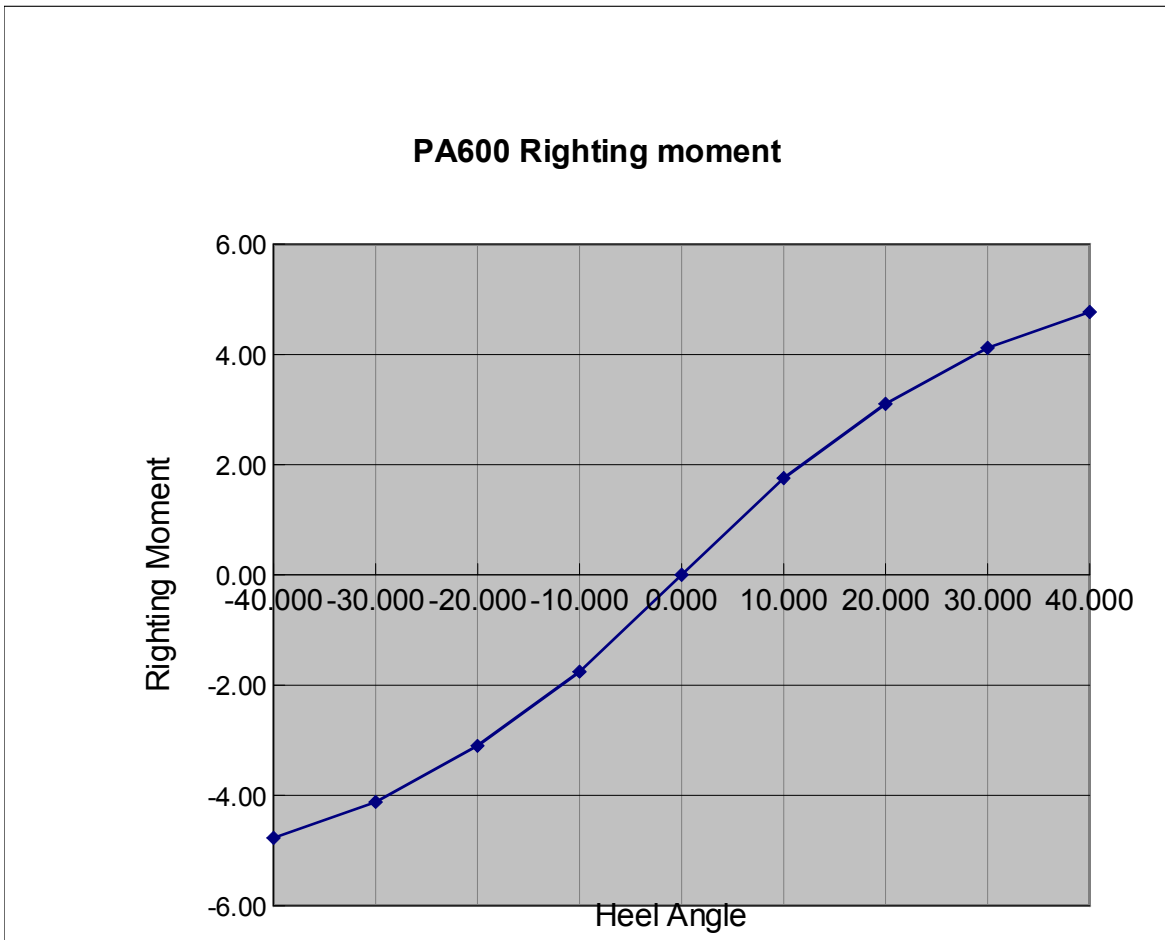
1.General

L_{oA} = 6 m
 L_H = 6 m
 Displacement= 1115.7 Kg
 Design Category C
 Condition Minimum Operating

2.Righting arm

The righting moment curve and Heeling moment curve plot on the same graph , as below:

Heel(deg)	Trim(deg)	Righting Arm (m)	Righting Moment (N*m)	
-40.000	-0.72	-0.44	-4.77	
-30.000	-0.94	-0.38	-4.12	
-20.000	-1.58	-0.28	-3.10	
-10.000	-2.45	-0.16	-1.76	
0.000	-3.08	0.00	0.00	
10.000	-2.45	0.16	1.76	
20.000	-1.58	0.28	3.10	
30.000	-0.94	0.38	4.12	
40.000	-0.72	0.44	4.77	



PA600 Righting Arm (Loaded Arrival)-cat. C

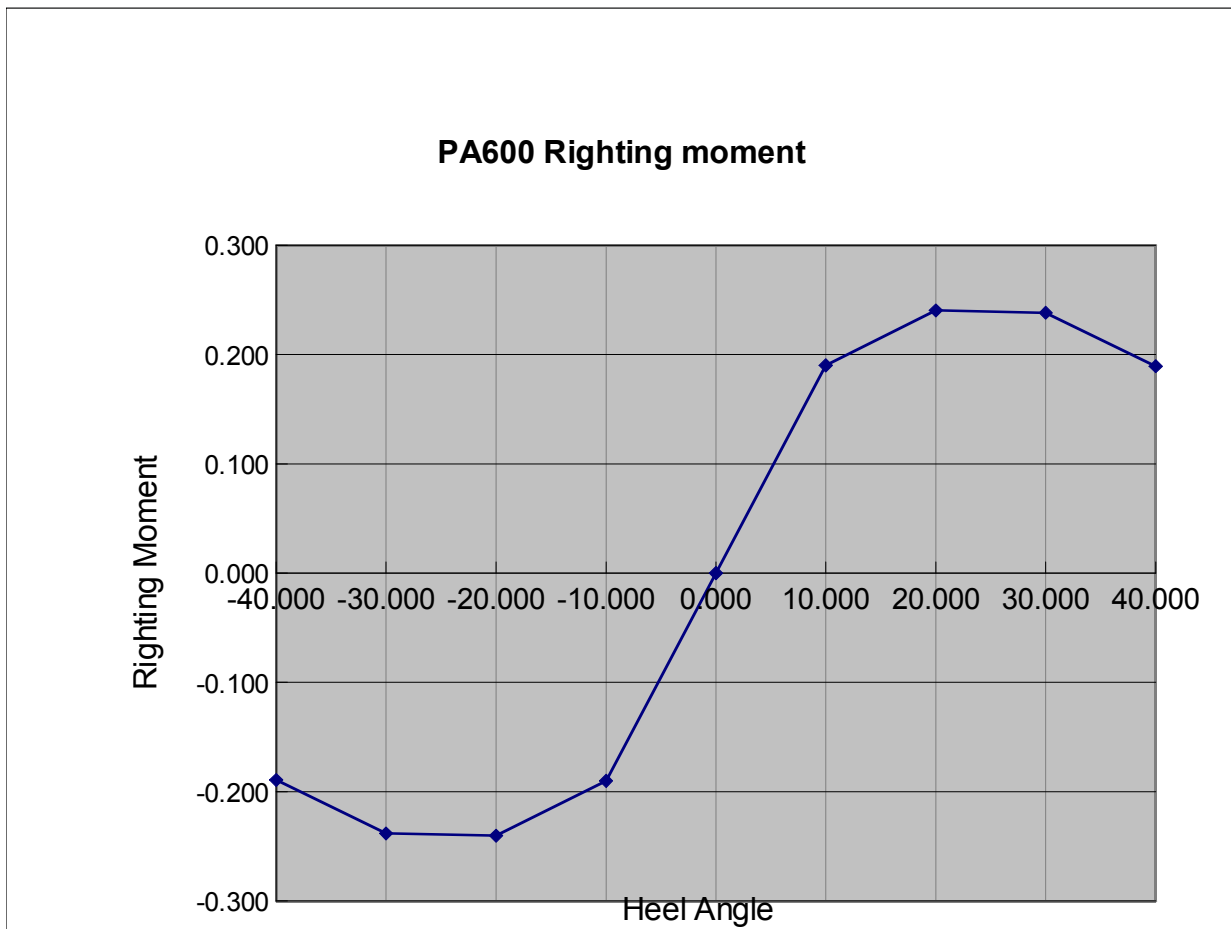
1.General

L_{oA} = 6 m
 L_H = 6 m
Displacement= 2118.5 Kg
Design Category C
Condition Loaded Arrival

2.Righting arm

The righting moment curve and Heeling moment curve plot on the same graph , as below:

Heel(deg)	Trim(deg)	Righting Arm (m)	Righting Moment (N*m)	
-40.000	2.312	-0.298	-0.189	
-30.000	2.309	-0.306	-0.238	
-20.000	2.217	-0.260	-0.240	
-10.000	2.304	-0.170	-0.190	
0.000	2.368	0.000	0.000	
10.000	2.304	0.170	0.190	
20.000	2.217	0.260	0.240	
30.000	2.309	0.306	0.238	
40.000	2.312	0.298	0.189	



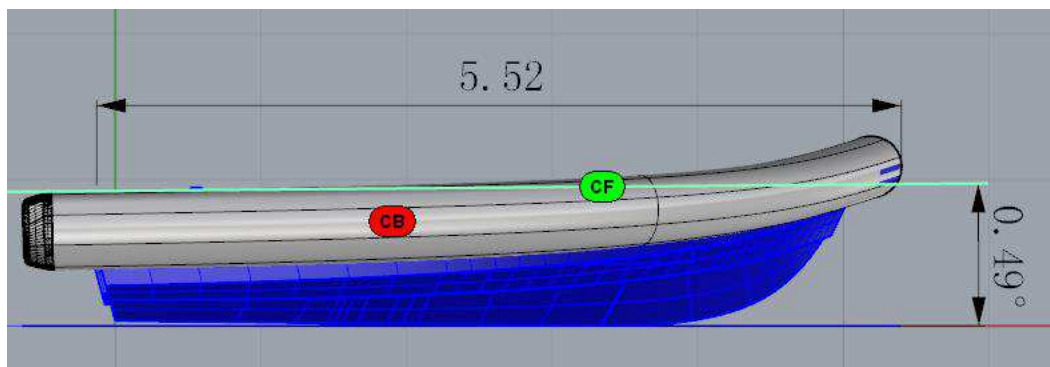
PA600 Swamped stability

1.General

Length Overall, LOA	6.000	m
$L_H =$	6.000	m
Beam Overall, Boa	2.460	m
Depth Overall, D	1.301	m
Waterline Length, Lwl	5.528	m
Waterline Beam, Bwl	2.082	m
Navigational Draft, T	0.542	m
Displacement Weight	2226.800	kgf
Volume	2.171	m ³
LCG	1.910	m
TCG	0.000	m
VCG	0.810	m
Fluid Density	1025.000	kg/m ³
LCB	1.911	m
TCB	0.000	m
VCB	0.715	m
Wetted Surface Area	15.684	m ²
Waterplane Area, Awp	3.149	m ²
LCF	3.344	m
TCF	0.000	m
Weight To Immerse	32.304	kgf/cm
C_b	0.348	
C_{vp}	1.272	
C_{wp}	0.274	
C_{ws}	4.528	
$I(\text{transverse})$	1.883	m ⁴
$I(\text{longitudinal})$	6.245	m ⁴
BMt	0.868	m
BMI	2.877	m
GMt	0.773	m
GMI	2.782	m
Mt	0.640	m
MI	2.650	m
Design Category	C	

2.Trim angle requirement

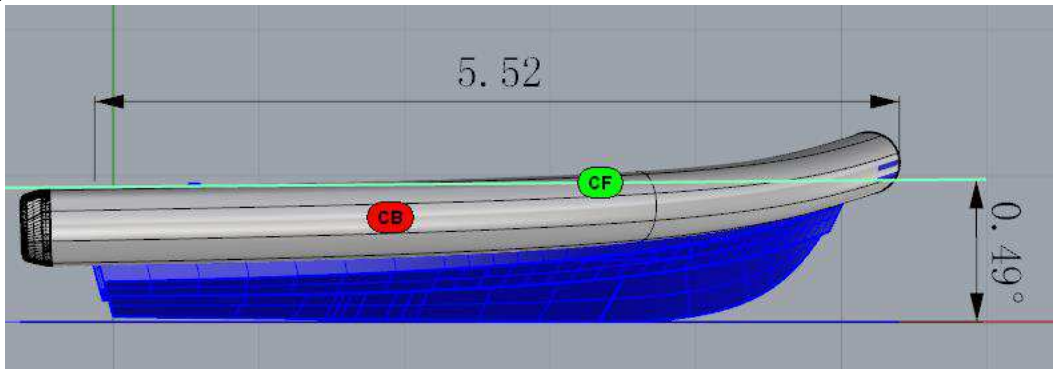
When the boat in the fully loaded condition is filled to overflowing with water , it shall float with not more than 10° from the unswamped fully loaded waterline



As shown from above , the trim angle $\Phi = 0.49^\circ < 10^\circ$
 Result: PASS

3. L_H requirement

When the boat in the fully loaded condition is filled to overflowing with water, it shall be more than $2/3$ of L_H above the water



As shown from above, $L_H =$

$$L_H' / L_H =$$

5.520 m

$$0.920 > 2/3 L_H =$$

0.667

Result:

PASS

PA600 Maximum power for initial testing

The maximum power for initial testing of outboard powered craft is determined based on the following:

- factor λ , calculated as follows:

$$\lambda = L_H \times B_T$$

where

L_H is the length of hull, in metres, as defined in ISO 8666;

B_T is the transom width, in metres, at or below the sheer, as defined in ISO 8666;

For craft with a factor λ greater than 5,1, the value of the maximum power for initial testing, expressed in kilowatts, is taken as the following (see Figure C.3):

- without remote wheel steering, deadrise angle $\alpha < 5$: $4,2\lambda - 11$;
- without remote wheel steering, deadrise angle $\alpha \geq 5$: $6,4\lambda - 19$;
- with remote wheel steering: $16\lambda - 67$.

OM590

Lh 6 m

Bt 2.46 m

λ 14.76 $\lambda > 5$

Deadrise >5 deg.

With steering wheel

169.16 KW 226.6744 HP

$$7\sqrt{L_H} \quad 17.14643 \text{ Kn}$$

$$V_{\max} > \quad 7\sqrt{L_H}$$

The test has to be performed with the maximum power.