Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Summary

	_		_
Load	Cond	dition	Parameters

Condition	Weight / Sinkage	LCG / Trim	TCG / Heel	VCG (in)
Condition 1	10.000 lbf	0.000 deg	0.000 deg	0
Condition 2	15.000 lbf	0.000 deg	0.000 deg	0
Condition 3	20.000 lbf	0.000 deg	0.000 deg	0
Condition 4	25.000 lbf	0.000 deg	0.000 deg	0
Condition 5	30.000 lbf	0.000 deg	0.000 deg	0
Condition 6	35.000 lbf	0.000 deg	0.000 deg	0
Condition 7	40.000 lbf	0.000 deg	0.000 deg	0
Condition 8	45.000 lbf	0.000 deg	0.000 deg	0
Condition 9	50.000 lbf	0.000 deg	0.000 deg	0
Condition 10	55.000 lbf	0.000 deg	0.000 deg	0
Condition 11	60.000 lbf	0.000 deg	0.000 deg	0
Condition 12	65.000 lbf	0.000 deg	0.000 deg	0
Condition 13	70.000 lbf	0.000 deg	0.000 deg	0
Condition 14	75.000 lbf	0.000 deg	0.000 deg	0
Condition 15	80.000 lbf	0.000 deg	0.000 deg	0
Condition 16	85.000 lbf	0.000 deg	0.000 deg	0
Condition 17	90.000 lbf	0.000 deg	0.000 deg	0
Condition 18	95.000 lbf	0.000 deg	0.000 deg	0
Condition 19	100.000 lbf	0.000 deg	0.000 deg	0

Resulting Model Attitude and Hydrostatic Properties

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Condition	Sinkage (in)	Trim(deg)	Heel(deg)	Ax(ft^2)
Condition 1	1.389	0.000	0.000	0.04
Condition 2	1.789	0.000	0.000	0.05
Condition 3	2.165	0.000	0.000	0.07
Condition 4	2.520	0.000	0.000	0.09
Condition 5	2.858	0.000	0.000	0.11
Condition 6	3.182	0.000	0.000	0.13
Condition 7	3.492	0.000	0.000	0.15
Condition 8	3.770	0.000	0.000	0.17
Condition 9	4.034	0.000	0.000	0.19
Condition 10	4.297	0.000	0.000	0.20
Condition 11	4.558	0.000	0.000	0.22
Condition 12	4.817	0.000	0.000	0.24
Condition 13	5.075	0.000	0.000	0.26
Condition 14	5.331	0.000	0.000	0.28
Condition 15	5.585	0.000	0.000	0.30
Condition 16	5.837	0.000	0.000	0.31
Condition 17	6.088	0.000	0.000	0.33
Condition 18	6.337	0.000	0.000	0.35
Condition 19	6.584	0.000	0.000	0.37

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Condition	Displacement Weight (lbf)	LCB(in)	TCB(in)	VCB(in)	Wet Area (ft^2)
Condition 1	10.000	27.239	0.022	0.883	3.355
Condition 2	15.000	27.185	0.019	1.119	4.046
Condition 3	20.000	27.136	0.017	1.334	4.700
Condition 4	25.000	27.086	0.017	1.536	5.324
Condition 5	30.000	27.038	0.018	1.728	5.923
Condition 6	35.000	26.995	0.019	1.913	6.499
Condition 7	40.000	26.955	0.018	2.091	7.059
Condition 8	45.000	26.938	0.019	2.263	7.828
Condition 9	50.000	26.936	0.019	2.427	8.294
Condition 10	55.000	26.936	0.019	2.585	8.758
Condition 11	60.000	26.938	0.019	2.738	9.220
Condition 12	65.000	26.941	0.019	2.888	9.680
Condition 13	70.000	26.945	0.019	3.035	10.139
Condition 14	75.000	26.950	0.019	3.180	10.596
Condition 15	80.000	26.957	0.019	3.322	11.052
Condition 16	85.000	26.964	0.019	3.463	11.505
Condition 17	90.000	26.971	0.019	3.602	11.957
Condition 18	95.000	26.979	0.019	3.739	12.408
Condition 19	100.000	26.988	0.019	3.875	12.856

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Condition	Awp(ft^2)	LCF(in)	TCF(in)	VCF(in)
Condition 1	2.260	27.117	0.014	1.389
Condition 2	2.420	27.036	0.013	1.789
Condition 3	2.567	26.940	0.013	2.165
Condition 4	2.704	26.845	0.019	2.520
Condition 5	2.835	26.763	0.022	2.858
Condition 6	2.961	26.697	0.018	3.182
Condition 7	3.093	26.618	0.020	3.492
Condition 8	3.529	26.918	0.017	3.770
Condition 9	3.553	26.931	0.017	4.034
Condition 10	3.577	26.948	0.017	4.297
Condition 11	3.601	26.967	0.018	4.558
Condition 12	3.626	26.987	0.018	4.817
Condition 13	3.650	27.009	0.018	5.075
Condition 14	3.675	27.039	0.019	5.331
Condition 15	3.700	27.066	0.019	5.585
Condition 16	3.725	27.089	0.020	5.837
Condition 17	3.748	27.109	0.020	6.088
Condition 18	3.773	27.136	0.020	6.337
Condition 19	3.797	27.165	0.020	6.584

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Condition	BMt(in)	BMI(in)	GMt(in)	GMI(in)
Condition 1	237.309	279.960	238.192	280.843
Condition 2	169.523	199.525	170.642	200.644
Condition 3	134.933	158.273	136.267	159.607
Condition 4	113.775	132.939	115.311	134.475
Condition 5	99.459	115.743	101.188	117.472
Condition 6	89.104	103.336	91.018	105.250
Condition 7	81.502	94.531	83.593	96.622
Condition 8	82.815	97.511	85.077	99.774
Condition 9	75.043	88.495	77.469	90.922
Condition 10	68.694	81.154	71.279	83.739
Condition 11	63.407	75.056	66.145	77.795
Condition 12	58.933	69.900	61.821	72.788
Condition 13	55.101	65.498	58.136	68.534
Condition 14	51.790	61.746	54.970	64.926
Condition 15	48.888	58.448	52.210	61.770
Condition 16	46.318	55.511	49.781	58.974
Condition 17	44.029	52.887	47.631	56.489
Condition 18	41.989	50.571	45.728	54.310
Condition 19	40.155	48.512	44.030	52.387

Hydrostatics & Stability Analysis

Default Company

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Condition	Cb	Ср	Cwp	Сх	Cws	Cvp
Condition 1	0.107	0.881	0.180	0.122	3.861	0.597
Condition 2	0.123	0.873	0.189	0.141	3.785	0.649
Condition 3	0.133	0.864	0.198	0.154	3.792	0.675
Condition 4	0.141	0.856	0.205	0.165	3.827	0.687
Condition 5	0.147	0.850	0.213	0.174	3.875	0.694
Condition 6	0.153	0.845	0.220	0.181	3.929	0.696
Condition 7	0.158	0.840	0.227	0.188	3.985	0.694
Condition 8	0.161	0.837	0.254	0.193	4.160	0.634
Condition 9	0.167	0.834	0.255	0.200	4.175	0.654
Condition 10	0.172	0.832	0.256	0.206	4.197	0.671
Condition 11	0.176	0.829	0.257	0.212	4.224	0.685
Condition 12	0.179	0.827	0.257	0.217	4.255	0.697
Condition 13	0.183	0.824	0.258	0.222	4.288	0.708
Condition 14	0.186	0.822	0.259	0.226	4.323	0.717
Condition 15	0.188	0.820	0.260	0.230	4.360	0.725
Condition 16	0.191	0.818	0.260	0.233	4.397	0.733
Condition 17	0.193	0.816	0.261	0.236	4.436	0.739
Condition 18	0.195	0.814	0.262	0.240	4.474	0.745
Condition 19	0.197	0.812	0.263	0.242	4.513	0.749

Notes

- 1. Locations such as the center of buoyancy and center of flotation are measured from the origin in the Rhinoceros world coordinate system.
- 2. The orientation of the model for an Orca3D hydrostatics solution is defined in terms of "sinkage," "trim," and "heel." The sinkage value represents the depth of the body origin (i.e. the Rhino world origin) below the resultant flotation plane, and is sometimes referred to as "origin depth." Heel and trim represent angular rotations about the Rhino longitudinal and transverse axes, respectively, and are taken in that order. For a more detailed description of these terms see the Orca3D documentation.
- 3. Hull form coefficients are non-dimensionalized by the waterline length.
- 4. Calculation of Cp and Cx use Orca sections to determine Ax. If no Orca sections are defined, these values will be reported as zero.

Hydrostatics & Stability Analysis

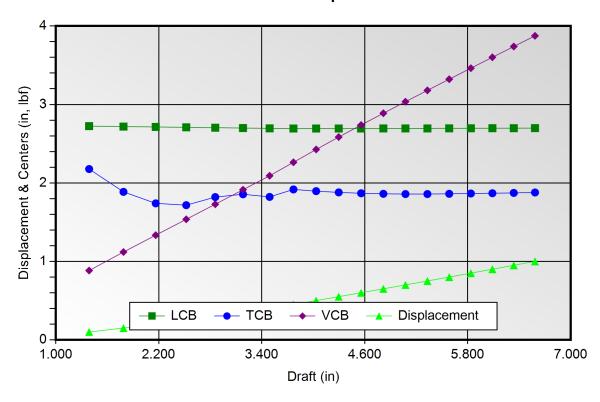
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Volumetric Properties



Hydrostatics & Stability Analysis

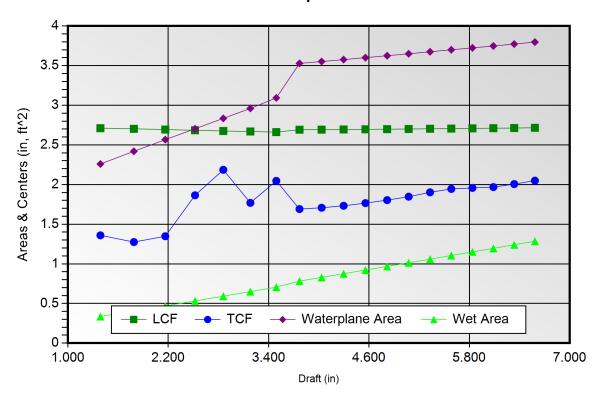
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Area Properties



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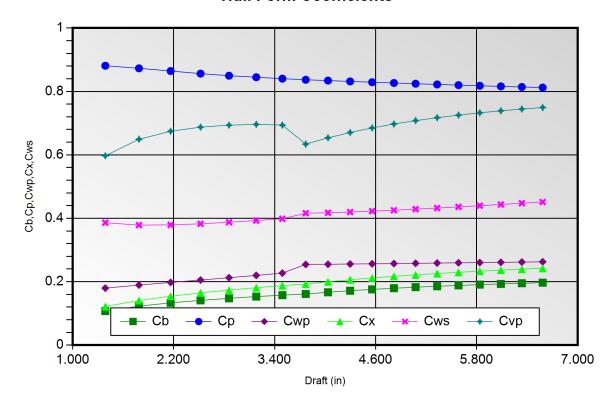
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Hull Form Coefficients



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Object Type	Name	ID
polysurface	Body2	{ca88ffdd-234a-41cb-9d33-b2d3cabdac7f}
polysurface	Body2	{1efc3b00-06e2-4170-9047-1c2721e1bece}

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 1, Weight=10.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density 1 Minimum edge length 0.0001 in Maximum angle 0 Maximum edge length 0 in Maximum aspect ratio 0 Max distance, edge to surf. 0 in Minimum initial grid quads 0 Jagged seams False Refine mesh True Simple planes True

Load Condition Parameters

 Weight
 10.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 1.389 in

Trim Angle 0.000 deg

Overall Dimensions

 Length Overall, LOA
 66.249 in
 Loa / Boa
 1.841

 Beam Overall, Boa
 35.989 in
 Boa / D
 4.658

 Depth Overall, D
 7.726 in

Hydrostatics & Stability Analysis

Default Company

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Waterline Dimensions				
Waterline Length, Lwl	58.027 in	Lwl / Bwl		1.860
Waterline Beam, Bwl	31.196 in	Bwl / T		22.468
Navigational Draft, T	1.388 in	D/T		5.564
Volumetric Values				
Displacement Weight	10.000 lbf	Displ-Length Rati	0	39.482
Volume	0.156 ft^3			
LCB	27.239 in	FB/Lwl 0.552	AB/Lwl	0.448
TCB	0.022 in	TCB / Bwl		0.001
VCB	0.883 in			
Wetted Surface Area	3.355 ft^2			
Moment To Trim	4.033 lbf-ft/in			
Waterplane Values				
Waterplane Area, Awp	2.260 ft^2			
LCF	27.117 in	FF/Lwl 0.554	AF/Lwl	0.446
TCF	0.014 in	TCF / Lwl		0.000
Weight To Immerse	12.061 lbf/in			
Sectional Parameters				
Ax	0.037 ft^2			
Ax Location	14.722 in	Ax Location / Lwl		0.768
Hull Form Coefficients				
Cb	0.107	Сх	0.122	
Ср	0.881	Cwp	0.180	
Cvp	0.597	Cws	3.861	

Static Stability Parameters

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	3.088 ft^4	I(longitudinal)	3.643 ft^4
BMt	237.309 in	BMI	279.960 in
GMt	238.192 in	GMI	280.843 in
Mt	236.803 in	MI	279.454 in

Hydrostatics & Stability Analysis

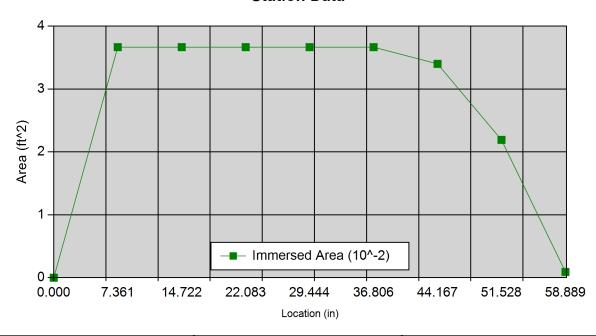
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Station Data



Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.037	8.804
14.722	0.037	8.804
22.083	0.037	8.804
29.444	0.037	8.804
36.806	0.037	8.804
44.167	0.034	8.366
51.528	0.022	6.967
58.889	0.001	1.425

Hydrostatics & Stability Analysis

Default Company

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Condition Name=Condition 2, Weight=15.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

Weight 15.000 lbf
Model Trim 0.000 deg
Model Heel 0.000 deg
VCG 0 in
Fluid Type Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 1.789 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA Beam Overall, Boa	66.249 in	Loa / Boa	1.841
	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

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Waterline Dimensions				
Waterline Length, Lwl	58.552 in	Lwl / Bwl		1.863
Waterline Beam, Bwl	31.436 in	Bwl / T		17.574
Navigational Draft, T	1.789 in	D/T		4.319
Volumetric Values				
Displacement Weight	15.000 lbf	Displ-Length Rat	io	57.646
Volume	0.234 ft^3			
LCB	27.185 in	FB/Lwl 0.557	AB/Lwl	0.443
TCB	0.019 in	TCB / Bwl		0.001
VCB	1.119 in			
Wetted Surface Area	4.046 ft^2			
Moment To Trim	4.283 lbf-ft/in			
Waterplane Values				
Waterplane Area, Awp	2.420 ft^2			
LCF	27.036 in	FF/Lwl 0.560	AF/LwI	0.440
TCF	0.013 in	TCF / Lwl		0.000
Weight To Immerse	12.916 lbf/in			
Sectional Parameters				
Ax	0.055 ft^2			
Ax Location	14.722 in	Ax Location / Lw	I	0.770
Hull Form Coefficients				
Cb	0.123	Сх	0.141	
Ср	0.873	Cwp	0.189	
Cvp	0.649	Cws	3.785	

Static Stability Parameters

Hydrostatics & Stability Analysis

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I(transverse)	3.309 ft^4	I(longitudinal)	3.894 ft^4
BMt	169.523 in	BMI	199.525 in
GMt	170.642 in	GMI	200.644 in
Mt	168.853 in	MI	198.855 in

Hydrostatics & Stability Analysis

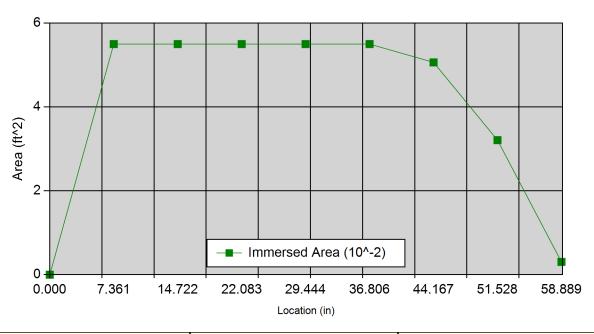
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Station Data



Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.055	10.476
14.722	0.055	10.476
22.083	0.055	10.476
29.444	0.055	10.476
36.806	0.055	10.476
44.167	0.051	10.005
51.528	0.032	8.570
58.889	0.003	3.158

Hydrostatics & Stability Analysis

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Condition Name=Condition 3, Weight=20.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 20.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 2.165 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

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Waterline Dimensions					
Waterline Length, Lwl	59.044 in		Lwl / Bwl		1.865
Waterline Beam, Bwl	31.662 in		Bwl / T		14.628
Navigational Draft, T	2.164 in		D/T		3.569
Volumetric Values					
Displacement Weight	20.000 lbf		Displ-Length Ratio		74.954
Volume	0.312 ft^3				
LCB	27.136 in		FB/Lwl 0.562	AB/Lwl	0.438
TCB	0.017 in		TCB / Bwl		0.001
VCB	1.334 in				
Wetted Surface Area	4.700 ft^2				
Moment To Trim	4.505 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	2.567 ft^2				
LCF	26.940 in		FF/Lwl 0.565	AF/Lwl	0.435
TCF	0.013 in		TCF / Lwl		0.000
Weight To Immerse	13.699 lbf/in				
Sectional Parameters					
Ax	0.073 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.772
Hull Form Coefficients					
Cb	0.133	Сх		0.154	
Ср	0.864	Cwp		0.198	
Cvp	0.675	Cws		3.792	

Static Stability Parameters

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I(transverse)	3.511 ft^4	I(longitudinal)	4.119 ft^4
BMt	134.933 in	BMI	158.273 in
GMt	136.267 in	GMI	159.607 in
Mt	134.102 in	MI	157.442 in

Hydrostatics & Stability Analysis

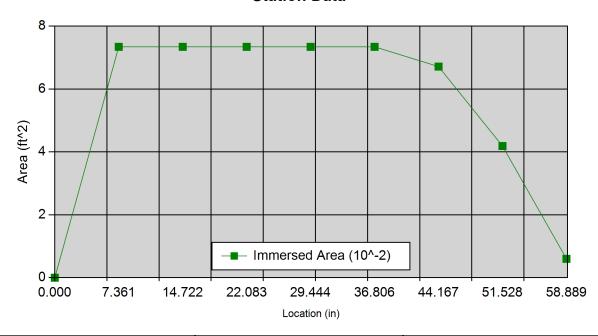
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Station Data



Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.073	12.044
14.722	0.073	12.044
22.083	0.073	12.044
29.444	0.073	12.044
36.806	0.073	12.044
44.167	0.067	11.542
51.528	0.042	10.075
58.889	0.006	4.665

Hydrostatics & Stability Analysis

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Condition Name=Condition 4, Weight=25.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 25.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 2.520 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA Beam Overall, Boa	66.249 in	Loa / Boa	1.841
	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

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Waterline Dimensions					
Waterline Dimensions					
Waterline Length, Lwl	59.510 in		Lwl / Bwl		1.867
Waterline Beam, Bwl	31.875 in		Bwl / T		12.649
Navigational Draft, T	2.520 in		D/T		3.066
Volumetric Values					
Displacement Weight	25.000 lbf		Displ-Length Ratio		91.509
Volume	0.390 ft^3				
LCB	27.086 in		FB/Lwl 0.566	AB/Lwl	0.434
TCB	0.017 in		TCB / Bwl		0.001
VCB	1.536 in				
Wetted Surface Area	5.324 ft^2				
Moment To Trim	4.708 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	2.704 ft^2				
LCF	26.845 in		FF/Lwl 0.570	AF/Lwl	0.430
TCF	0.019 in		TCF / Lwl		0.000
Weight To Immerse	14.431 lbf/in				
Sectional Parameters					
Ax	0.092 ft^2				
Ax Location	22.083 in		Ax Location / Lwl		0.650
Hull Form Coefficients					
Cb	0.141	Сх		0.165	
Ср	0.856	Cwp		0.205	
Cvp	0.687	Cws		3.827	

Static Stability Parameters

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	3.701 ft^4	I(longitudinal)	4.324 ft^4
BMt	113.775 in	BMI	132.939 in
GMt	115.311 in	GMI	134.475 in
Mt	112.791 in	MI	131.955 in

Hydrostatics & Stability Analysis

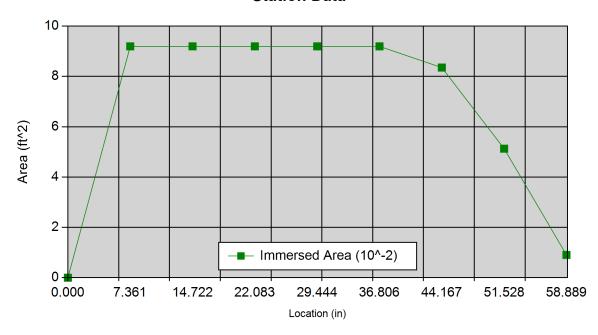
Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Station Data



Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.092	13.529
14.722	0.092	13.529
22.083	0.092	13.529
29.444	0.092	13.529
36.806	0.092	13.529
44.167	0.084	12.996
51.528	0.051	11.499
58.889	0.009	6.091

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 5, Weight=30.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 30.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 2.858 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions				
Waterline Length, Lwl	59.857 in	Lwl / Bwl		1.866
Waterline Beam, Bwl	32.078 in	Bwl / T		11.223
Navigational Draft, T	2.858 in	D/T		2.703
Volumetric Values				
Displacement Weight	30.000 lbf	Displ-Length Ratio)	107.913
Volume	0.468 ft^3			
LCB	27.038 in	FB/Lwl 0.569	AB/Lwl	0.431
TCB	0.018 in	TCB / Bwl		0.001
VCB	1.728 in			
Wetted Surface Area	5.923 ft^2			
Moment To Trim	4.906 lbf-ft/in			
Waterplane Values				
Waterplane Area, Awp	2.835 ft^2			
LCF	26.763 in	FF/Lwl 0.574	AF/LwI	0.426
TCF	0.022 in	TCF / Lwl		0.000
Weight To Immerse	15.130 lbf/in			
Sectional Parameters				
Ax	0.111 ft^2			
Ax Location	22.083 in	Ax Location / Lwl		0.652
Hull Form Coefficients				
Cb	0.147	Сх	0.174	
Ср	0.850	Cwp	0.213	
Cvp	0.694	Cws	3.875	

Static Stability Parameters

Hydrostatics & Stability Analysis

Default Company

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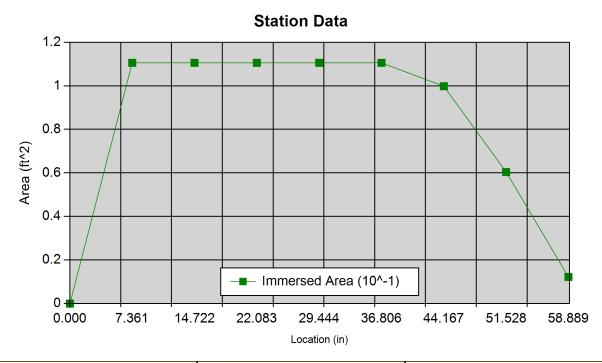
I(transverse)	3.882 ft^4	I(longitudinal)	4.518 ft^4
BMt	99.459 in	BMI	115.743 in
GMt	101.188 in	GMI	117.472 in
Mt	98.329 in	MI	114.613 in

Hydrostatics & Stability Analysis

Default Company

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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.111	14.941
14.722	0.111	14.941
22.083	0.111	14.941
29.444	0.111	14.941
36.806	0.111	14.941
44.167	0.100	14.380
51.528	0.060	12.853
58.889	0.012	7.448

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 6, Weight=35.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 35.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 3.182 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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 $Model\ Name:\ C:\ Users\ hlebronriver 2021\ Desktop\ Cat_multihull. 3dm$



Waterline Dimensions					
Waterline Length, Lwl	60.080 in		Lwl / Bwl		1.862
Waterline Beam, Bwl	32.272 in		Bwl / T		10.143
Navigational Draft, T	3.182 in		D/T		2.428
Volumetric Values					
Displacement Weight	35.000 lbf		Displ-Length Ratio		124.502
Volume	0.546 ft^3				
LCB	26.995 in		FB/Lwl 0.571	AB/Lwl	0.429
TCB	0.019 in		TCB / Bwl		0.001
VCB	1.913 in				
Wetted Surface Area	6.499 ft^2				
Moment To Trim	5.109 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	2.961 ft^2				
LCF	26.697 in		FF/Lwl 0.576	AF/Lwl	0.424
TCF	0.018 in		TCF / Lwl		0.000
Weight To Immerse	15.803 lbf/in				
Sectional Parameters					
Ax	0.129 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.776
Hull Form Coefficients					
Cb	0.153	Сх		0.181	
Ср	0.845	Cwp		0.220	
- 1					

Static Stability Parameters

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	4.058 ft^4	I(longitudinal)	4.706 ft^4
BMt	89.104 in	BMI	103.336 in
GMt	91.018 in	GMI	105.250 in
Mt	87.836 in	MI	102.068 in

Hydrostatics & Stability Analysis

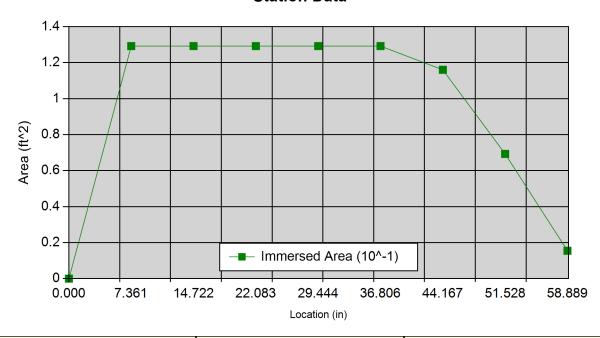
Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Station Data



Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.129	16.292
14.722	0.129	16.292
22.083	0.129	16.292
29.444	0.129	16.292
36.806	0.129	16.292
44.167	0.116	15.704
51.528	0.069	14.149
58.889	0.015	8.746

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 7, Weight=40.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

Weight 40.000 lbf
Model Trim 0.000 deg
Model Heel 0.000 deg
VCG 0 in
Fluid Type Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 3.492 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions					
Waterline Length, Lwl	60.294 in	L	wl / Bwl		1.854
Waterline Beam, Bwl	32.517 in	В	swl / T		9.313
Navigational Draft, T	3.492 in	D) / T		2.213
Volumetric Values					
Displacement Weight	40.000 lbf	D	ispl-Length Ratio		140.781
Volume	0.625 ft^3				
LCB	26.955 in	F	B/Lwl 0.574	AB/Lwl	0.426
TCB	0.018 in	Т	CB / Bwl		0.001
VCB	2.091 in				
Wetted Surface Area	7.059 ft^2				
Moment To Trim	5.342 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.093 ft^2				
LCF	26.618 in	F	F/Lwl 0.579	AF/Lwl	0.421
TCF	0.020 in	Т	CF / Lwl		0.000
Weight To Immerse	16.508 lbf/in				
Sectional Parameters					
Ax	0.148 ft^2				
Ax Location	14.722 in	A	x Location / Lwl		0.777
Hull Form Coefficients					
Cb	0.158	Сх		0.188	
Ср	0.840	Cwp		0.227	
Cvp	0.694	Cws		3.985	

Hydrostatics & Stability Analysis

Default Company

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? ft^4 I(longitu	,
? in BMI	94.531 in
B in GMI	96.622 in
in MI	93.130 in
3	3 in GMI

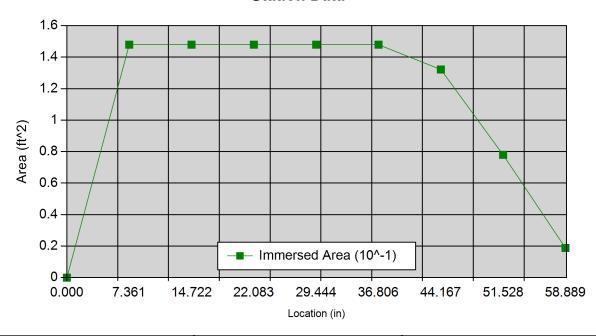
Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm





Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.148	17.586
14.722	0.148	17.586
22.083	0.148	17.586
29.444	0.148	17.586
36.806	0.148	17.586
44.167	0.132	16.973
51.528	0.078	15.393
58.889	0.019	9.989

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 8, Weight=45.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density 1 Minimum edge length 0.0001 in Maximum angle 0 Maximum edge length 0 in Maximum aspect ratio 0 Max distance, edge to surf. 0 in Minimum initial grid quads 0 Jagged seams False Refine mesh True Simple planes True

Load Condition Parameters

 Weight
 45.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 3.770 in Trim Angle 0.000 deg

Overall Dimensions

 Length Overall, LOA
 66.249 in
 Loa / Boa
 1.841

 Beam Overall, Boa
 35.989 in
 Boa / D
 4.658

 Depth Overall, D
 7.726 in

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions			
Waterline Length, Lwl	60.485 in	Lwl / Bwl	1.831
Waterline Beam, Bwl	33.030 in	Bwl / T	8.763
Navigational Draft, T	3.769 in	D/T	2.050
Volumetric Values			
Displacement Weight	45.000 lbf	Displ-Length Ratio	156.879
Volume	0.703 ft^3		
LCB	26.938 in	FB/Lwl 0.575	AB/Lwl 0.425
TCB	0.019 in	TCB / Bwl	0.001
VCB	2.263 in		
Wetted Surface Area	7.828 ft^2		
Moment To Trim	6.186 lbf-ft/in		
Waterplane Values			
Waterplane Area, Awp	3.529 ft^2		
LCF	26.918 in	FF/Lwl 0.576	AF/Lwl 0.424
TCF	0.017 in	TCF / Lwl	0.000
Weight To Immerse	18.833 lbf/in		
Sectional Parameters			
Ax	0.167 ft^2		
Ax Location	14.722 in	Ax Location / Lwl	0.777
Hull Form Coefficients			
Cb	0.161	Сх	0.193
Ср	0.837	Cwp	0.254
Cvp	0.634	Cws	4.160

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	4.849 ft^4	I(longitudinal)	5.710 ft^4
BMt	82.815 in	BMI	97.511 in
GMt	85.077 in	GMI	99.774 in
Mt	81.308 in	MI	96.004 in

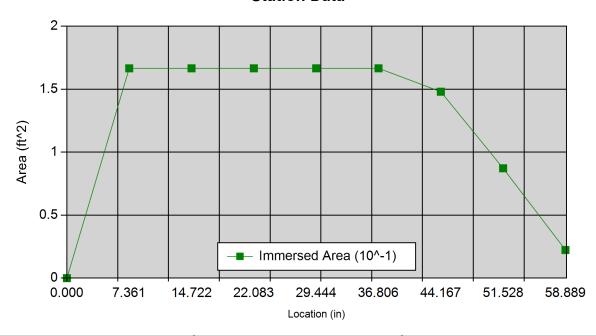
Hydrostatics & Stability Analysis

Default Company

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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.167	19.551
14.722	0.167	19.551
22.083	0.167	19.551
29.444	0.167	19.551
36.806	0.167	19.551
44.167	0.148	18.687
51.528	0.087	17.177
58.889	0.022	11.230

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 9, Weight=50.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

Weight 50.000 lbf
Model Trim 0.000 deg
Model Heel 0.000 deg
VCG 0 in
Fluid Type Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 4.034 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions			
Waterline Length, Lwl	60.667 in	Lwl / Bwl	1.835
Waterline Beam, Bwl	33.062 in	Bwl / T	8.196
Navigational Draft, T	4.034 in	D/T	1.915
Volumetric Values			
Displacement Weight	50.000 lbf	Displ-Length Ratio	172.743
Volume	0.781 ft^3		
LCB	26.936 in	FB/Lwl 0.577	AB/Lwl 0.423
TCB	0.019 in	TCB / Bwl	0.001
VCB	2.427 in		
Wetted Surface Area	8.294 ft^2		
Moment To Trim	6.245 lbf-ft/in		
Waterplane Values			
Waterplane Area, Awp	3.553 ft^2		
LCF	26.931 in	FF/Lwl 0.577	AF/Lwl 0.423
TCF	0.017 in	TCF / Lwl	0.000
Weight To Immerse	18.960 lbf/in		
Sectional Parameters			
Ax	0.185 ft^2		
Ax Location	14.722 in	Ax Location / Lwl	0.778
Hull Form Coefficients			
Cb	0.167	Сх	0.200
Ср	0.834	Cwp	0.255
Cvp	0.654	Cws	4.175

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	4.882 ft^4	I(longitudinal)	5.757 ft^4
BMt	75.043 in	BMI	88.495 in
GMt	77.469 in	GMI	90.922 in
Mt	73.435 in	MI	86.888 in

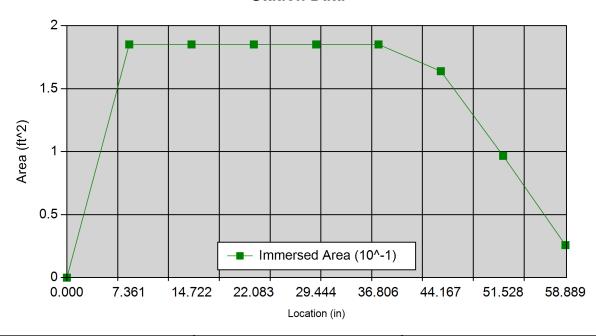
Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm





Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.185	20.612
14.722	0.185	20.612
22.083	0.185	20.612
29.444	0.185	20.612
36.806	0.185	20.612
44.167	0.164	19.747
51.528	0.097	18.236
58.889	0.026	12.290

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 10, Weight=55.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density Maximum angle Maximum aspect ratio	1 0 0	Minimum edge length Maximum edge length Max distance, edge to surf.	0.0001 in 0 in 0 in
Minimum initial grid quads Refine mesh	0 True	Jagged seams Simple planes	False True

Load Condition Parameters

 Weight
 55.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 4.297 in Trim Angle 0.000 deg

Length Overall, LOA Beam Overall, Boa	66.249 in	Loa / Boa	1.841
	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions					
Waterline Length, Lwl	60.849 in		Lwl / Bwl		1.839
Waterline Beam, Bwl	33.094 in		Bwl / T		7.702
Navigational Draft, T	4.297 in		D/T		1.798
Volumetric Values					
Displacement Weight	55.000 lbf		Displ-Length Ratio		188.325
Volume	0.859 ft^3				
LCB	26.936 in		FB/Lwl 0.578	AB/Lwl	0.422
TCB	0.019 in		TCB / Bwl		0.001
VCB	2.585 in				
Wetted Surface Area	8.758 ft^2				
Moment To Trim	6.308 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.577 ft^2				
LCF	26.948 in		FF/Lwl 0.578	AF/Lwl	0.422
TCF	0.017 in		TCF / Lwl		0.000
Weight To Immerse	19.089 lbf/in				
Sectional Parameters					
Ax	0.204 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.779
Hull Form Coefficients					
Cb	0.172	Сх		0.206	
Ср	0.832	Cwp		0.256	
Cvp	0.671	Cws		4.197	

Hydrostatics & Stability Analysis

Default Company

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I(transverse)	4.916 ft^4	I(longitudinal)	5.808 ft^4
BMt	68.694 in	BMI	81.154 in
GMt	71.279 in	GMI	83.739 in
Mt	66.981 in	MI	79.442 in

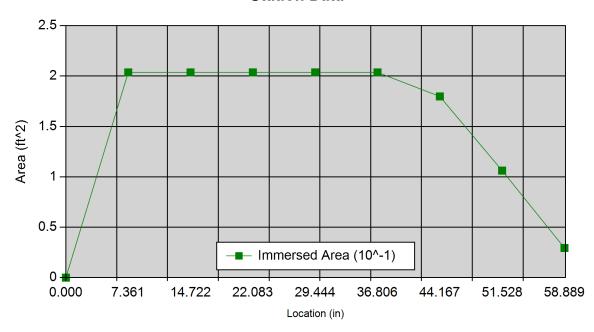
Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm





Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.204	21.665
14.722	0.204	21.665
22.083	0.204	21.665
29.444	0.204	21.665
36.806	0.204	21.665
44.167	0.180	20.800
51.528	0.106	19.288
58.889	0.029	13.342

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 11, Weight=60.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 60.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 4.558 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions						
Waterline Length, Lwl	61.0	28 in		Lwl / Bwl		1.842
Waterline Beam, Bwl	33.1	25 in		Bwl / T		7.268
Navigational Draft, T	4.5	58 in		D/T		1.695
Volumetric Values						
Displacement Weight	60.0	00 lbf		Displ-Length Ratio		203.634
Volume	0.9	37 ft^3				
LCB	26.9	38 in		FB/Lwl 0.579	AB/Lwl	0.421
TCB	0.0	19 in		TCB / Bwl		0.001
VCB	2.7	38 in				
Wetted Surface Area	9.2	20 ft^2				
Moment To Trim	6.3	74 lbf-ft/in				
Waterplane Values						
Waterplane Area, Awp	3.6	01 ft^2				
LCF	26.9	67 in		FF/Lwl 0.579	AF/Lwl	0.421
TCF	0.0	18 in		TCF / Lwl		0.000
Weight To Immerse	19.2	20 lbf/in				
Sectional Parameters						
Ax	0.2	22 ft^2				
Ax Location	14.7	22 in		Ax Location / Lwl		0.779
Hull Form Coefficients						
Cb	0.176		Сх		0.212	
Cn	0.829		Cwp		0.257	
Ср						

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I(transverse)	4.950 ft^4	I(longitudinal)	5.860 ft^4
BMt	63.407 in	BMI	75.056 in
GMt	66.145 in	GMI	77.795 in
Mt	61.587 in	MI	73.236 in

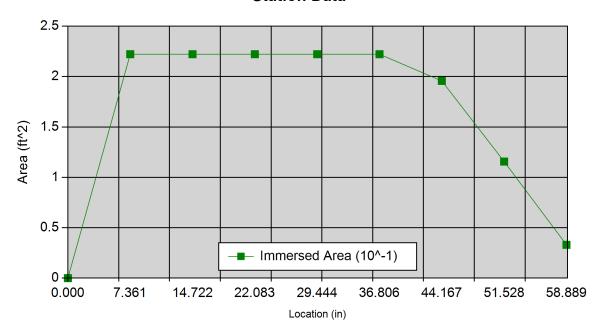
Hydrostatics & Stability Analysis

Default Company

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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.222	22.711
14.722	0.222	22.711
22.083	0.222	22.711
29.444	0.222	22.711
36.806	0.222	22.711
44.167	0.196	21.846
51.528	0.116	20.332
58.889	0.033	14.387

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 12, Weight=65.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 65.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 4.817 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

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Waterline Dimensions					
Waterline Length, Lwl	61.207 in		Lwl / Bwl		1.846
Waterline Beam, Bwl	33.157 in		Bwl / T		6.883
Navigational Draft, T	4.817 in		D/T		1.604
Volumetric Values					
Displacement Weight	65.000 lbf		Displ-Length Ratio		218.677
Volume	1.015 ft^3				
LCB	26.941 in		FB/Lwl 0.580	AB/Lwl	0.420
TCB	0.019 in		TCB / Bwl		0.001
VCB	2.888 in				
Wetted Surface Area	9.680 ft^2				
Moment To Trim	6.442 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.626 ft^2				
LCF	26.987 in		FF/Lwl 0.580	AF/Lwl	0.420
TCF	0.018 in		TCF / Lwl		0.000
Weight To Immerse	19.350 lbf/in				
Sectional Parameters					
Ax	0.241 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.780
Hull Form Coefficients					
Cb	0.179	Сх		0.217	
Ср	0.827	Cwp		0.257	
Cvp	0.697	Cws		4.255	

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I(transverse)	4.984 ft^4	I(longitudinal)	5.912 ft^4
BMt	58.933 in	BMI	69.900 in
GMt	61.821 in	GMI	72.788 in
Mt	57.004 in	MI	67.971 in

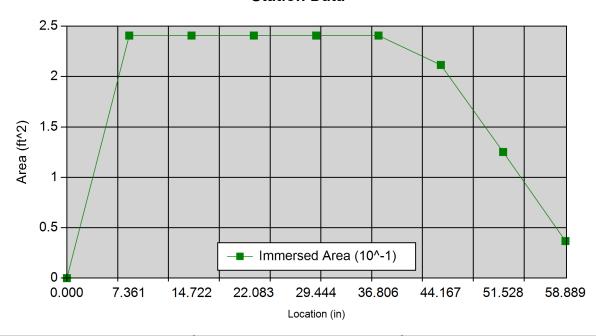
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.241	23.750
14.722	0.241	23.750
22.083	0.241	23.750
29.444	0.241	23.750
36.806	0.241	23.750
44.167	0.212	22.885
51.528	0.125	21.370
58.889	0.037	15.425

Hydrostatics & Stability Analysis

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 13, Weight=70.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 70.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 5.075 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

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Waterline Dimensions					
Waterline Length, Lwl	61.385 in		Lwl / Bwl		1.850
Waterline Beam, Bwl	33.188 in		Bwl / T		6.540
Navigational Draft, T	5.075 in		D/T		1.522
Volumetric Values					
Displacement Weight	70.000 lbf		Displ-Length Ratio		233.461
Volume	1.093 ft^3				
LCB	26.945 in		FB/Lwl 0.581	AB/Lwl	0.419
TCB	0.019 in		TCB / Bwl		0.001
VCB	3.035 in				
Wetted Surface Area	10.139 ft^2				
Moment To Trim	6.513 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.650 ft^2				
LCF	27.009 in		FF/Lwl 0.580	AF/Lwl	0.420
TCF	0.018 in		TCF / Lwl		0.000
Weight To Immerse	19.481 lbf/in				
Sectional Parameters					
Ax	0.259 ft^2				
Ax Location	22.083 in		Ax Location / Lwl		0.661
Hull Form Coefficients					
Cb	0.183	Сх		0.222	
Ср	0.824	Cwp		0.258	
Cvp	0.708	Cws		4.288	

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I(transverse)	5.019 ft^4	I(longitudinal)	5.966 ft^4
BMt	55.101 in	BMI	65.498 in
GMt	58.136 in	GMI	68.534 in
Mt	53.061 in	MI	63.459 in

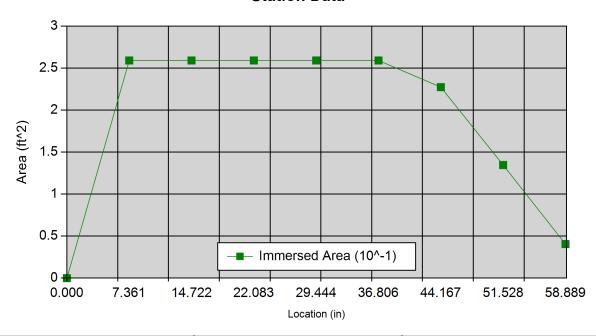
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.259	24.782
14.722	0.259	24.782
22.083	0.259	24.782
29.444	0.259	24.782
36.806	0.259	24.782
44.167	0.227	23.916
51.528	0.135	22.401
58.889	0.040	16.457

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 14, Weight=75.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 75.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 5.331 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

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Waterline Dimensions					
Waterline Length, Lwl	61.561 in		Lwl / Bwl		1.853
Waterline Beam, Bwl	33.219 in		Bwl / T		6.232
Navigational Draft, T	5.330 in		D/T		1.449
Volumetric Values					
Displacement Weight	75.000 lbf		Displ-Length Ratio		247.994
Volume	1.171 ft^3				
LCB	26.950 in		FB/Lwl 0.583	AB/Lwl	0.417
TCB	0.019 in		TCB / Bwl		0.001
VCB	3.180 in				
Wetted Surface Area	10.596 ft^2				
Moment To Trim	6.592 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.675 ft^2				
LCF	27.039 in		FF/Lwl 0.581	AF/Lwl	0.419
TCF	0.019 in		TCF / Lwl		0.000
Weight To Immerse	19.616 lbf/in				
Sectional Parameters					
Ax	0.278 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.781
Hull Form Coefficients					
Cb	0.186	Сх		0.226	
Ср	0.822	Cwp		0.259	
Cvp	0.717	Cws		4.323	

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I(transverse)	5.054 ft^4	I(longitudinal)	6.026 ft^4
BMt	51.790 in	BMI	61.746 in
GMt	54.970 in	GMI	64.926 in
Mt	49.639 in	MI	59.595 in

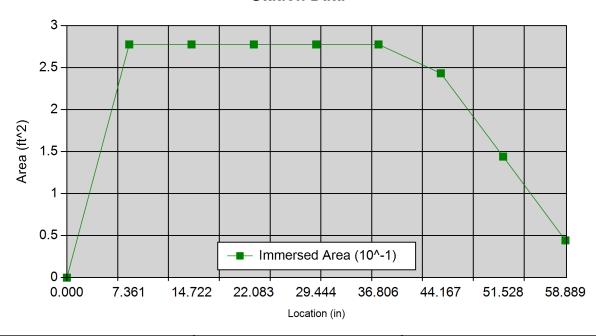
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.278	25.807
14.722	0.278	25.807
22.083	0.278	25.807
29.444	0.278	25.807
36.806	0.278	25.807
44.167	0.243	24.941
51.528	0.144	23.424
58.889	0.044	17.481

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 15, Weight=80.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0 Maximum edge length		0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 80.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 5.585 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

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Waterline Dimensions					
Waterline Length, Lwl	61.736 in		Lwl / Bwl		1.857
Waterline Beam, Bwl	33.250 in		Bwl / T		5.954
Navigational Draft, T	5.584 in		D/T		1.383
Volumetric Values					
Displacement Weight	80.000 lbf		Displ-Length Ratio		262.283
Volume	1.249 ft^3				
LCB	26.957 in		FB/Lwl 0.584	AB/Lwl	0.416
TCB	0.019 in		TCB / Bwl		0.001
VCB	3.322 in				
Wetted Surface Area	11.052 ft^2				
Moment To Trim	6.670 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.700 ft^2				
LCF	27.066 in		FF/Lwl 0.582	AF/LwI	0.418
TCF	0.019 in		TCF / Lwl		0.000
Weight To Immerse	19.749 lbf/in				
Sectional Parameters					
Ax	0.296 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.782
Hull Form Coefficients					
Cb	0.188	Сх		0.230	
Ср	0.820	Cwp		0.260	
Cvp	0.725	Cws		4.360	

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I(transverse)	5.089 ft^4	I(longitudinal)	6.084 ft^4
BMt	48.888 in	BMI	58.448 in
GMt	52.210 in	GMI	61.770 in
Mt	46.625 in	MI	56.185 in
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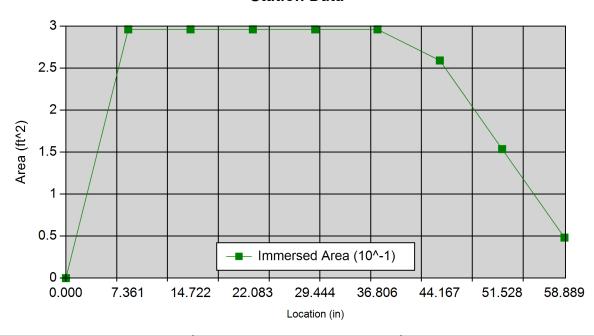
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.296	26.825
14.722	0.296	26.825
22.083	0.296	26.825
29.444	0.296	26.825
36.806	0.296	26.825
44.167	0.259	25.959
51.528	0.154	24.441
58.889	0.048	18.498

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 16, Weight=85.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0 Maximum edge length		0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 85.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 5.837 in Trim Angle 0.000 deg

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

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Waterline Dimensions					
Waterline Length, Lwl	61.895 in		Lwl / Bwl		1.860
Waterline Beam, Bwl	33.281 in		Bwl / T		5.702
Navigational Draft, T	5.837 in		D/T		1.324
Volumetric Values					
Displacement Weight	85.000 lbf		Displ-Length Ratio		276.528
Volume	1.327 ft^3				
LCB	26.964 in		FB/Lwl 0.585	AB/Lwl	0.415
TCB	0.019 in		TCB / Bwl		0.001
VCB	3.463 in				
Wetted Surface Area	11.505 ft^2				
Moment To Trim	6.749 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.725 ft^2				
LCF	27.089 in		FF/Lwl 0.583	AF/Lwl	0.417
TCF	0.020 in		TCF / Lwl		0.000
Weight To Immerse	19.878 lbf/in				
Sectional Parameters					
Ax	0.315 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.782
Hull Form Coefficients					
Cb	0.191	Сх		0.233	
Ср	0.818	Cwp		0.260	
Cvp	0.733	Cws		4.397	

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I(transverse)	5.123 ft^4	I(longitudinal)	6.139 ft^4
BMt	46.318 in	BMI	55.511 in
GMt	49.781 in	GMI	58.974 in
Mt	43.944 in	MI	53.137 in

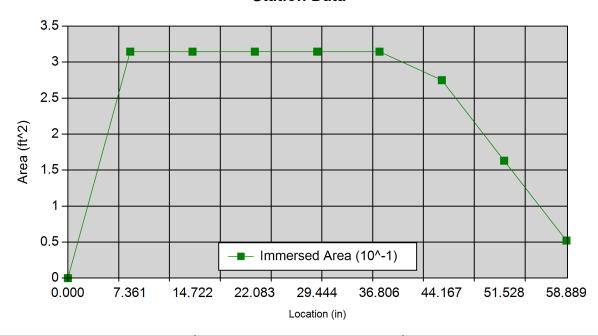
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.315	27.836
14.722	0.315	27.836
22.083	0.315	27.836
29.444	0.315	27.836
36.806	0.315	27.836
44.167	0.275	26.969
51.528	0.163	25.451
58.889	0.052	19.508

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 17, Weight=90.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density Maximum and a	1	Minimum edge length	0.0001 in
Maximum angle Maximum aspect ratio	0	Maximum edge length Max distance, edge to surf.	0 in 0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 90.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 6.088 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA	66.249 in	Loa / Boa	1.841
Beam Overall, Boa	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

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Waterline Dimensions				
Waterline Length, Lwl	62.053 in	Lwl / Bwl	1.86	63
Waterline Beam, Bwl	33.311 in	Bwl / T	5.47	72
Navigational Draft, T	6.088 in	D/T	1.26	69
Volumetric Values				
Displacement Weight	90.000 lbf	Displ-Length Ratio	290.5	76
Volume	1.405 ft^3			
LCB	26.971 in	FB/Lwl 0.585	AB/Lwl 0.4	15
TCB	0.019 in	TCB / Bwl	0.00	01
VCB	3.602 in			
Wetted Surface Area	11.957 ft^2			
Moment To Trim	6.828 lbf-ft/in			
Waterplane Values				
Waterplane Area, Awp	3.748 ft^2			
LCF	27.109 in	FF/Lwl 0.583	AF/Lwl 0.4	17
TCF	0.020 in	TCF / Lwl	0.00	00
Weight To Immerse	20.005 lbf/in			
Sectional Parameters				
Ax	0.333 ft^2			
Ax Location	14.722 in	Ax Location / Lwl	0.78	83
Hull Form Coefficients				
Cb	0.193	Сх	0.236	
Ср	0.816	Cwp	0.261	
Cvp	0.739	Cws	4.436	

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I(transverse)	5.156 ft^4	I(longitudinal)	6.193 ft^4
BMt	44.029 in	BMI	52.887 in
GMt	47.631 in	GMI	56.489 in
Mt	41.543 in	MI	50.401 in

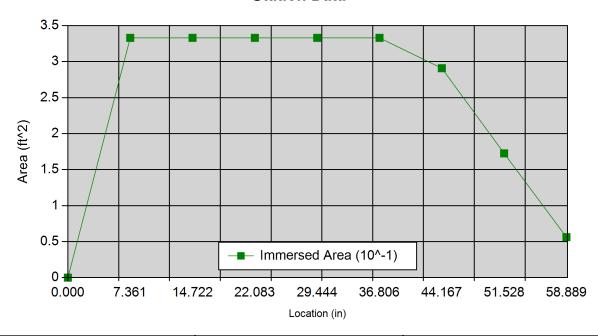
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.333	28.841
14.722	0.333	28.841
22.083	0.333	28.841
29.444	0.333	28.841
36.806	0.333	28.841
44.167	0.291	27.974
51.528	0.173	26.455
58.889	0.056	20.513

Hydrostatics & Stability Analysis

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Report Time: Tuesday, February 21, 2023, 5:27:09 PM

Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Condition Name=Condition 18, Weight=95.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 95.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 6.337 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA Beam Overall, Boa	66.249 in	Loa / Boa	1.841
	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

Hydrostatics & Stability Analysis

Default Company

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Model Name: C:\Users\hlebronriver2021\Desktop\Cat_multihull.3dm



Waterline Dimensions					
Waterline Length, Lwl	62.209 in	Lv	vl / Bwl		1.866
Waterline Beam, Bwl	33.341 in	Bv	vI / T		5.262
Navigational Draft, T	6.337 in	D	/ T		1.219
Volumetric Values					
Displacement Weight	95.000 lbf	Di	spl-Length Ratio		304.415
Volume	1.483 ft^3				
LCB	26.979 in	FE	3/Lwl 0.586	AB/Lwl	0.414
TCB	0.019 in	TC	CB / Bwl		0.001
VCB	3.739 in				
Wetted Surface Area	12.408 ft^2				
Moment To Trim	6.912 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.773 ft^2				
LCF	27.136 in	FF	F/Lwl 0.584	AF/Lwl	0.416
TCF	0.020 in	TC	CF / Lwl		0.000
Weight To Immerse	20.135 lbf/in				
Sectional Parameters					
Ax	0.351 ft^2				
Ax Location	7.361 in	Ах	Location / Lwl		0.902
Hull Form Coefficients					
Cb	0.195	Сх		0.240	
Ср	0.814	Cwp		0.262	
Cvp	0.745	Cws		4.474	

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I(transverse)	5.190 ft^4	I(longitudinal)	6.251 ft^4
BMt	41.989 in	BMI	50.571 in
GMt	45.728 in	GMI	54.310 in
Mt	39.391 in	MI	47.973 in

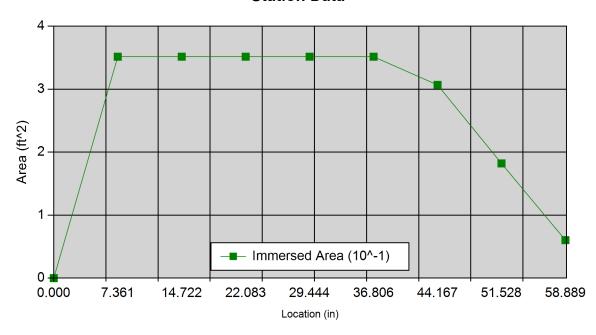
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.351	29.839
14.722	0.351	29.839
22.083	0.351	29.839
29.444	0.351	29.839
36.806	0.351	29.839
44.167	0.307	28.972
51.528	0.182	27.452
58.889	0.060	21.510

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Condition Name=Condition 19, Weight=100.00, Model Trim=0.00, Model Heel=0.00

General Info

Analysis Type FreeFloatEquilibrium Up Direction = Positive_Z Fwd Direction = Positive_X

Surface Meshing Parameters

Density	1	Minimum edge length	0.0001 in
Maximum angle	0	Maximum edge length	0 in
Maximum aspect ratio	0	Max distance, edge to surf.	0 in
Minimum initial grid quads	0	Jagged seams	False
Refine mesh	True	Simple planes	True

Load Condition Parameters

 Weight
 100.000 lbf

 Model Trim
 0.000 deg

 Model Heel
 0.000 deg

 VCG
 0 in

 Fluid Type
 Seawater

Fluid Density 1.991 slug/ft^3

Mirror Geometry False

Resultant Model Attitude

Heel Angle 0.000 deg Sinkage 6.584 in Trim Angle 0.000 deg

Overall Dimensions

Length Overall, LOA Beam Overall, Boa	66.249 in	Loa / Boa	1.841
	35.989 in	Boa / D	4.658
Depth Overall, D	7.726 in		

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Waterline Dimensions					
Waterline Length, Lwl	62.364 in		Lwl / Bwl		1.869
Waterline Beam, Bwl	33.371 in		Bwl / T		5.068
Navigational Draft, T	6.584 in		D/T		1.173
Volumetric Values					
Displacement Weight	100.000 lbf		Displ-Length Ratio		318.052
Volume	1.561 ft^3				
LCB	26.988 in		FB/Lwl 0.587	AB/Lwl	0.413
TCB	0.019 in		TCB / Bwl		0.001
VCB	3.875 in				
Wetted Surface Area	12.856 ft^2				
Moment To Trim	7.000 lbf-ft/in				
Waterplane Values					
Waterplane Area, Awp	3.797 ft^2				
LCF	27.165 in		FF/Lwl 0.584	AF/Lwl	0.416
TCF	0.020 in		TCF / Lwl		0.000
Weight To Immerse	20.267 lbf/in				
Sectional Parameters					
Ax	0.370 ft^2				
Ax Location	14.722 in		Ax Location / Lwl		0.784
Hull Form Coefficients					
Cb	0.197	Сх		0.242	
Ср	0.812	Cwp		0.263	
Cvp	0.749	Cws		4.513	

Hydrostatics & Stability Analysis

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I(transverse)	5.225 ft^4	I(longitudinal)	6.312 ft^4
BMt	40.155 in	BMI	48.512 in
GMt	44.030 in	GMI	52.387 in
Mt	37.445 in	MI	45.803 in

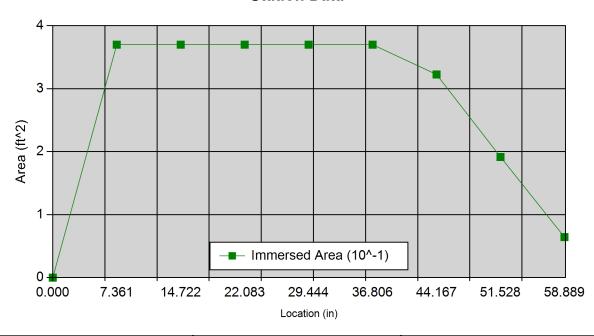
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Location (in)	Immersed Area (ft^2)	Immersed Girth (in)
0.000	0.000	0.000
7.361	0.370	30.831
14.722	0.370	30.831
22.083	0.370	30.831
29.444	0.370	30.831
36.806	0.370	30.831
44.167	0.323	29.963
51.528	0.192	28.442
58.889	0.064	22.501