

<b>BOAT</b> Name <b>ZARAFFA</b> Sail Nr <b>USA 61016</b>	<b>GPH</b> <b>432.3</b>	<b>HULL</b> Length Overall <b>20.278m</b> Maximum Beam <b>5.023m</b> Displacement <b>18,655kg</b> Draft <b>3.822m</b> Plan Review IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.001%</b> Hull Construction <b>Carbon</b> Carbon Rudder <b>Yes</b> Crew Arm Extension <b>0.00</b>
<b>GENERAL</b> Class <b>R/P 66</b> Designer <b>REICHEL/PUGH</b> Builder <b>NEB</b> Series <b>04/2000</b> Age <b>04/2000</b> Age Allowance <b>0.487%</b> Offset File <b>US31013.OFF - 09/12/2003 10:55:42</b> Measurement by - <b>20/05/2019</b>		IMSLS <b>17.948m</b> VCGD <b>-0.983m</b> Sink <b>48.00kg/mm</b> RL <b>17.232m</b> VCGM <b>-0.945m</b> WS <b>64.60m<sup>2</sup></b> LSM0 <b>17.544m</b> Displacement/Length ratio <b>3.4547</b>



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<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>422.2</b>			<b>476.1</b>		
Time on Time	<b>1.4211</b>			<b>1.4176</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>488.7</b>	<b>385.5</b>	<b>340.3</b>	<b>636.7</b>	<b>479.2</b>	<b>415.6</b>
Time on Time	<b>1.3811</b>	<b>1.7508</b>	<b>1.9835</b>	<b>1.0602</b>	<b>1.4087</b>	<b>1.6242</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>701.0</b>	<b>582.3</b>	<b>533.2</b>	<b>508.7</b>	<b>494.0</b>	<b>483.9</b>	<b>470.9</b>
52°	<b>454.6</b>	<b>386.5</b>	<b>366.3</b>	<b>357.1</b>	<b>351.5</b>	<b>348.0</b>	<b>338.6</b>
60°	<b>425.0</b>	<b>370.5</b>	<b>354.5</b>	<b>345.7</b>	<b>339.5</b>	<b>334.6</b>	<b>324.2</b>
75°	<b>401.8</b>	<b>359.4</b>	<b>341.3</b>	<b>328.3</b>	<b>319.3</b>	<b>312.9</b>	<b>305.0</b>
90°	<b>404.8</b>	<b>360.2</b>	<b>339.1</b>	<b>320.0</b>	<b>305.3</b>	<b>295.9</b>	<b>283.5</b>
110°	<b>446.3</b>	<b>370.4</b>	<b>347.5</b>	<b>330.5</b>	<b>314.4</b>	<b>297.1</b>	<b>264.0</b>
120°	<b>460.2</b>	<b>375.5</b>	<b>343.5</b>	<b>323.9</b>	<b>309.0</b>	<b>293.6</b>	<b>263.3</b>
135°	<b>511.9</b>	<b>402.8</b>	<b>357.9</b>	<b>331.4</b>	<b>304.8</b>	<b>280.4</b>	<b>248.1</b>
150°	<b>613.4</b>	<b>480.8</b>	<b>404.0</b>	<b>360.7</b>	<b>336.1</b>	<b>315.6</b>	<b>266.3</b>
Run VMG	<b>708.3</b>	<b>555.1</b>	<b>466.5</b>	<b>418.9</b>	<b>390.5</b>	<b>364.4</b>	<b>307.5</b>

**Certificate**  
Number **US6408**  
ORC Ref **0341000QQN**  
Issued On **22/09/2020**  
VPP Ver. **2020 1.02**  
Valid until **31/12/2020**

**Crew Weight**  
Default **1,535kg**  
Maximum **1,334kg**  
Minimum\* **1,001kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **460.8 1.3021**  
Non Spin OSN **453.9 1.3218**

<b>Selected Courses</b>							
Windward / Leeward	<b>704.7</b>	<b>568.7</b>	<b>499.9</b>	<b>463.8</b>	<b>442.3</b>	<b>424.2</b>	<b>389.2</b>
Circular Random	<b>590.8</b>	<b>479.1</b>	<b>420.0</b>	<b>385.5</b>	<b>363.3</b>	<b>347.0</b>	<b>321.6</b>
Coastal / Long Distance	<b>705.0</b>	<b>534.3</b>	<b>450.6</b>	<b>402.0</b>	<b>374.4</b>	<b>350.6</b>	<b>308.1</b>
Non Spinnaker	<b>637.4</b>	<b>514.2</b>	<b>447.4</b>	<b>407.3</b>	<b>381.0</b>	<b>362.3</b>	<b>336.1</b>

**Sails Limitations**  
Headsails **8** Spinnakers **6**

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.5°</b>	<b>42.0°</b>	<b>39.9°</b>	<b>39.0°</b>	<b>37.9°</b>	<b>37.1°</b>	<b>36.6°</b>
Beat VMG	<b>5.14</b>	<b>6.18</b>	<b>6.75</b>	<b>7.08</b>	<b>7.29</b>	<b>7.44</b>	<b>7.65</b>
52°	<b>7.92</b>	<b>9.31</b>	<b>9.83</b>	<b>10.08</b>	<b>10.24</b>	<b>10.35</b>	<b>10.63</b>
60°	<b>8.47</b>	<b>9.72</b>	<b>10.15</b>	<b>10.41</b>	<b>10.61</b>	<b>10.76</b>	<b>11.10</b>
75°	<b>8.96</b>	<b>10.02</b>	<b>10.55</b>	<b>10.97</b>	<b>11.28</b>	<b>11.50</b>	<b>11.80</b>
90°	<b>8.89</b>	<b>9.99</b>	<b>10.62</b>	<b>11.25</b>	<b>11.79</b>	<b>12.17</b>	<b>12.70</b>
110°	<b>8.07</b>	<b>9.72</b>	<b>10.36</b>	<b>10.89</b>	<b>11.45</b>	<b>12.12</b>	<b>13.64</b>
120°	<b>7.82</b>	<b>9.59</b>	<b>10.48</b>	<b>11.12</b>	<b>11.65</b>	<b>12.26</b>	<b>13.67</b>
135°	<b>7.03</b>	<b>8.94</b>	<b>10.06</b>	<b>10.86</b>	<b>11.81</b>	<b>12.84</b>	<b>14.51</b>
150°	<b>5.87</b>	<b>7.49</b>	<b>8.91</b>	<b>9.98</b>	<b>10.71</b>	<b>11.41</b>	<b>13.52</b>
Run VMG	<b>5.08</b>	<b>6.49</b>	<b>7.72</b>	<b>8.59</b>	<b>9.22</b>	<b>9.88</b>	<b>11.71</b>
Gybe Angles	<b>141.5°</b>	<b>140.5°</b>	<b>145.5°</b>	<b>152.3°</b>	<b>153.0°</b>	<b>150.0°</b>	<b>145.5°</b>

**Class Division Length**  
CDL = **17.608**

**Storm Sails Areas**  
Heavy Weather Jib **86.68**  
Storm Jib (JL=16.48) **32.11**  
Storm Trysail **43.43**

**Owner**

<b>BOAT</b>	
Name <b>ZARAFFA</b>	Sail Nr <b>USA 61016</b>
File <b>US6408</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Boom Inclining</b>	LCFD	
Flotation date <b>20/05/2019</b>	SG <b>1.0040</b>	
FFM <b>1.650</b>	FF <b>1.660</b>	SFFP <b>1.276</b>
FAM <b>1.316</b>	FA <b>1.323</b>	SAFP <b>19.460</b>
W1 <b>304.9</b>	PD1 <b>250.3</b>	WD <b>9.450</b>
W2 <b>304.9</b>	PD2 <b>249.5</b>	GSA <b>1.0</b>
W3 <b>304.9</b>	PD3 <b>245.3</b>	RSA <b>1.0</b>
W4 <b>304.9</b>	PD4 <b>249.1</b>	PLM <b>9000.0</b>
LCF from stem on CL / on sheer	<b>11.263 / 11.510</b>	
Maximum beam station from stem	<b>13.259</b>	
RM Measured	<b>913.0kg-m</b>	
RM Default	<b>876.2kg-m</b>	
Limit of positive stability / Stab.Index	<b>143.7° / 153.3</b>	
Freeboard at mast at 7.850	<b>1.526</b>	



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<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>3</b>
Inner Stay <b>None Fitted</b>	Runners/Checkstays <b>2</b>
Carbon Mast <b>Yes</b>	Jib Furler <b>No</b>
Fiber Rigging <b>No</b>	Main Furler <b>No</b>
Non-Circular Rigging <b>No</b>	
Articulated Bowsprit <b>No</b>	
P <b>26.540</b>	E <b>9.350</b> MDT1 <b>0.192</b> MW <b>0.381</b>
IG <b>25.181</b>	J <b>7.550</b> MDL1 <b>0.381</b> GO <b>0.428</b>
ISP <b>28.773</b>	SFJ <b>0.300</b> MDT2 <b>0.134</b> BD <b>0.400</b>
BAS <b>2.233</b>	SPL <b>0.000</b> MDL2 <b>0.216</b> MWT <b>765.00</b>
FSD <b>0.050</b>	TPS <b>10.515</b> TL <b>3.592</b> MCG <b>9.190</b>

<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>	
Installation <b>Strut</b>	PRD <b>0.672</b>
Type <b>Folding 2 blades</b>	PBW <b>0.196</b>
Twin Screw <b>No</b>	PIPA <b>0.0076</b>
ST1 <b>0.078</b>	ST3 <b>0.443</b> ST5 <b>0.441</b>
ST2 <b>0.424</b>	ST4 <b>0.195</b> EDL <b>1.615</b>

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<b>COMMENTS</b>	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

COPY ONLY Invalid for Racing



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<b>SAILS (Maximum Areas)</b>						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	1.63	2.70	3.89	5.88	7.64	151.74 154.87 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric Not Available						
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area Formula
	31.65	28.07	29.86	17.60	16.45	432.22 AS · (SFL + 4·SHW) / 6

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
H HB	H UW	H TW	H HW	H QW	H LP	H LU	Area	Btn	Flying	Meas.Date	Material	Comment
0.20	1.09	2.14	4.50	7.25	10.57	25.54	124.04	No			2019	genoa

<b>MEASUREMENT INVENTORY</b>				
Measurer	Date	Comment	Internal Ballast total = 0.0	
Id	Item	Weight	Distance	VCG Description
a	Anchor	0.0	0.00	
Id	Item	Weight	Description	

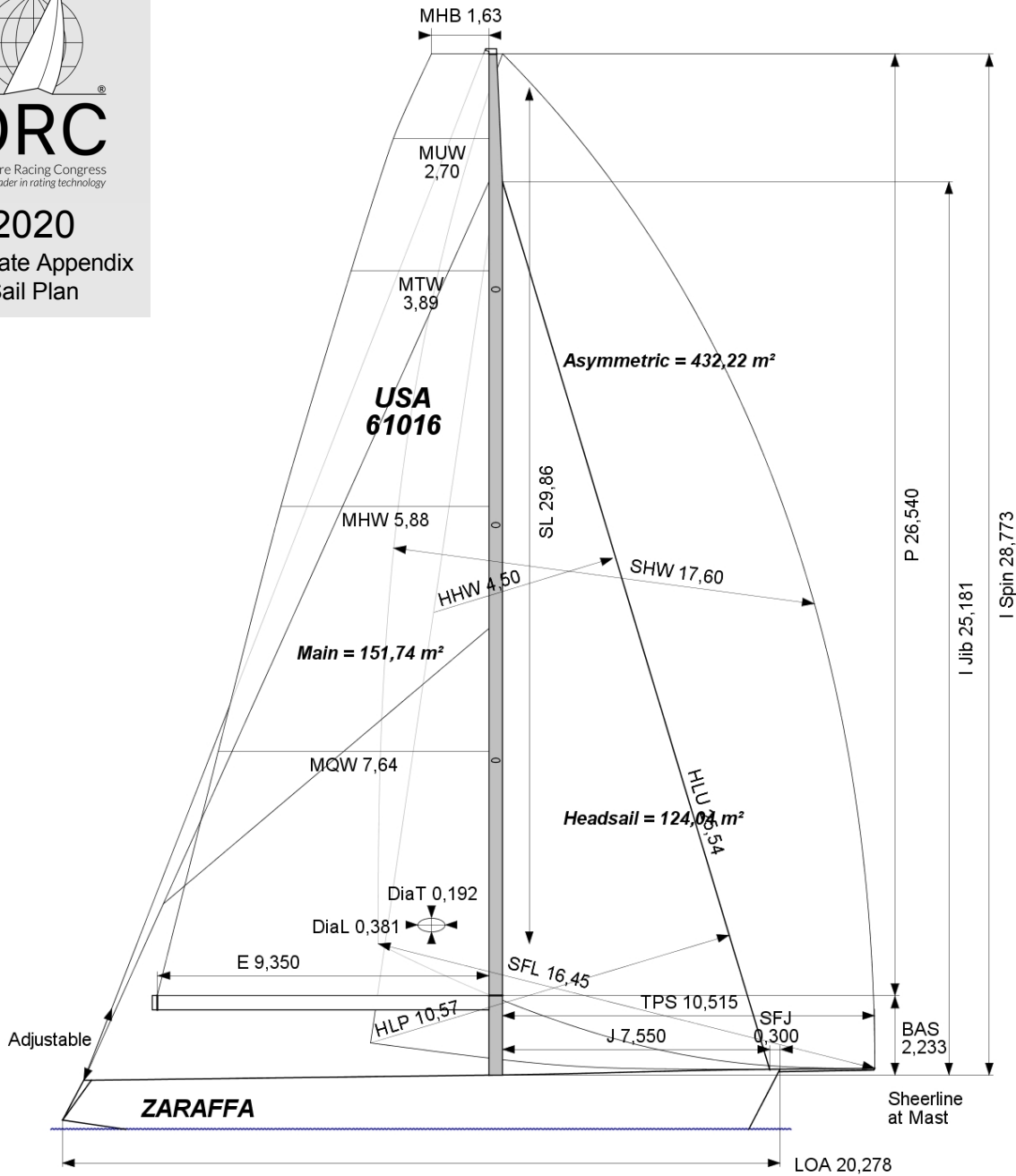
<b>MEASUREMENT INVENTORY</b>									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
	Tank					0.00	0.00	0-0	
Id	Item	Weight	Distance	VCG Description					



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Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2487082	1.63	2.70	3.89	5.88	7.64	151.75			Jeff Todd-		2019 main

**HEADSAILS (1)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
2487067	0.20	1.09	2.14	4.50	7.25	10.57	25.54	140%	124.04		No			Jeff Todd-		2019 genoa

**SYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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**ASYMMETRIC SPINNAKERS (1)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
2487052	31.65	28.07	29.86	17.60	16.45	432.23	asym			Jeff Todd-		2019-A2 spinn