

Miracle Association Measurements

Measurements marked with * are taken from the outside bottom corner of the transom following the of the transom following the contour of the chine or keel as appropriate.				
All measurements to be recorded in mm & kg				
		Min	Actual	Max
1	Weight of hull, inclusive of fixed fittings but excluding the Centreboard	58 kg.		-
1A	Weight of hull, inclusive of fixed fittings but including the Centreboard	62 kg		
2	Weight of correctors fitted to underside of thwart, if necessary	-		4 kg.
HULL – TOPSIDE				
3	Sail Number cut into transom or stamped on to a plate and attached to transom	20		-
4	Overall length. - top outside of aft transom to top fore edge of bow transom.	3875		3905
5	Outside transom to centreline of eye in jib plate	3675		3715
6	Outside transom to foreside of mast partners at deck level	-		2625
7	Outside transom to aft side of mast gate.	2470		-
8	Outside transom to centreline of chainplate eyes measured parallel to parallel to centreline of boat.	2225		2245
9	Outside transom to aft edge of thwart measured at tank sides only only	1510		1535
10	Beam at top of fore transom at sheerline.	300		320
11	Beam at 3125mm forward of transom at sheerline.	920		935
12	Beam at 1525mm forward of transom at sheerline.	1530		1550
13	Beam at 455mm forward of transom at sheerline.	1340		1360
13a	If false floor distance to floor at 455mm forward of transom measured from a straight edge placed across boat to top of floor	280		-
14	Beam at top of aft transom at sheerline.	1130		1155
15	Distance between side tank bulkheads at 1525mm forward of and within 50mm of inside deck level	945		965
16	Depth of hull inside skin to top of deck at forward mast partners	525		550
16a	If false floor distance from floor to top of deck at forward mast partners	460		

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HULL – UNDERSIDE				
30	Datum or Base line set below keel at transom.	-	158	-
31	datum or Base line set below keel at 3110mm forward of transom	-	106	-
* 32	Base line to underside of keel at 1000mm forward of transom	52		62
* 33	Base line to underside of keel at 2145mm forward of transom	25		35
34	Length of baseline from transom extended to point where bow transom extended cuts the baseline.	3535		3555
35	225mm from baseline measured along bow transom extension, to nearest point of forefoot.	40		55
36	Beam of upper chine at transom.	985		1005
37	Height of upper chine above baseline at transom.	245		265
* 38	Beam of upper chine at 1020mm forward of transom.	1265		1285
* 39	Height of upper chine above baseline at 1020mm forward of transom	155		175
* 40	Beam of upper chine at 2170mm forward of transom.	1120		1140
* 41	Height of upper chine above baseline at 2170mm forward of transom	190		200
* 42	Beam of upper chine at 3170mm forward of transom.	610		630
* 43	Height of upper chine above baseline at 3170mm forward of transom	330		350
44	Width of bottom panel at transom.	385		400
* 45	Projection of keel below skin between transom and 3200mm forward	14		18
46	Thickness of keel or chine bands if fitted.	-		5
47	Width of keel or chine bands if fitted.	-		15
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	SPARS		
80	Weight of mast with all fixed fittings and halyards but excluding shrouds and forestay.	5.5kg.	8.0kg
81	Overall length of mast.	-	5850
82	Mast step to lower edge of top black band.	-	5715
83	Mast step to centre of shrouds and forestay tang eyes or T terminals	4410	4455
84	Mast step to top of foresail sheave.	-	4330
85	Mast step to top edge of lower black band.	990	-
	Round Section Mast		
86a	Diameter of mast exclusive of attached track.	49	51
	Oval Section Mast		
86b	Diameter of mast on major axis.	58	60
86c	Diameter of mast on minor axis.	47	49
	Boom		
87	Overall length of boom.	2520	2560
88a	Distance of inner edge of black band on boom to aft side of mast tube with boom fitted to gooseneck. (Round Section Mast)	-	2450
89a	Distance of centre of eye locating kicking strap to mast tube with boom fitted to mast gooseneck. (Round Section Mast)	532	548
88b	Distance of inner edge of black band on boom to aft side of mast tube with boom fitted to gooseneck. (Oval Section Mast)	-	2440
89b	Distance of centre of eye locating kicking strap to mast tube with boom fitted to mast gooseneck. (Oval Section Mast)	522	538
	Round Section Boom		
90a	Diameter of boom.	44	46
	Oval Section Boom		
90b	Diameter of boom on major axis.	58	60
90c	Diameter of boom on minor axis.	47	49
91a	Extension of foresail booming out spar from foreside of mast including fittings.	-	1532
91b	Overall length of spinnaker pole including end fittings	-	1525
92	Centre of shroud tang eyes to top of spinnaker halyard sheave in (or T terminals)	-	250

