## Miracle Association Measurements 2024



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| 17 | \|Depth of keelson at mast step above inside step. | 45 | 60 |
| :---: | :---: | :---: | :---: |
| 18 | Depth of hull inside skin to sheerline at 1525 mm forward of | 425 | 445 |
|  | transom |  |  |
| 18a | If false floor distance from floor to straight edge placed across boat | 360 | 445 |
|  | at 1525 mm forward of transom |  |  |
|  |  |  |  |
| 19 | Depth of transom UNDERSIDE skin to sheerline. | 300 | 320 |
|  |  |  |  |
| 20 | Extension of rubbing bead beyond sheerline. | 20 | 30 |
| 20a | Hiking out wings - (optional)- extension beyond sheerline |  | 65 |
| 20b | Hiking out wings - distance measured in straight line from transom | 300 | 2650 |
|  |  |  |  |
| 21 | Width of centreboard case slot. | 20 | 27 |
|  |  |  |  |
| 22 | Jib fairleads may be fitted above or below deck |  |  |
|  |  |  |  |
| 22a | Distance from aft face of aft transom to aft face of the fairlead bearing | - | 2325 |
|  | surface. Starboard side. |  |  |
|  |  |  |  |
| 22b | Distance from aft face of aft transom to aft face of the fairlead bearing | - | 2325 |
|  | surface. Port side. |  |  |
|  |  |  |  |
| 23a | Distance from centreline of boat to fairlead outer bearing face | 350 | - |
|  | Starboard side |  |  |
|  |  |  |  |
| 23b | Distance from centreline of boat to fairlead outer bearing face | 350 | - |
|  | Port side |  |  |
|  |  |  |  |
| 24 | Through deck hole for jib fairlead | - | 25 |
|  |  |  |  |
| 25 | Distance from transom to centre of mainsheet pad(centre main only) | 1250 | 1500 |
| 25a | Depth of mainsheet pad below straight edge across deck sheerline | 60 |  |
| 26 | Depth of centreboard case measured from top of case to underside of | 250 | - |
|  | keel |  |  |
|  |  |  |  |
| 27 | Radius of all corners of spinnaker bag holes if cut into foredeck. | 15 | - |
|  | Holes should not be cut within 20 mm of the stowage compartment |  |  |
|  | bulkhead or aft edge of foredeck. Not to be cut within a minimum of |  |  |
|  | 50 mm of mast gate area or side gunwhale. |  |  |
|  |  |  |  |
| 28 | Width of side deck at any point between 2300 mm forward and the | 115 | - |
|  | transom measured from sheerline to inner edge of deck |  |  |
|  |  |  |  |
| 29 | If cut down front tank top surface of tank measured from |  | 280 |
|  | foredeck at 3125mm from transom |  |  |
|  |  |  |  |
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## Miracle Association Measurements 2024

|  | HULL - UNDERSIDE |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 30 | Datum or Base line set below keel at transom. | - | 158 | - |
|  |  |  |  |  |
| 31 | datum or Base line set below keel at 3110 mm 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 2145 mm forward of transom | 25 |  | 35 |
|  |  |  |  |  |
| 34 | Length of baseline from transom extended to point where bow | 3535 |  | 3555 |
|  | \|transom extended cuts the baseline. |  |  |  |
|  |  |  |  |  |
| 35 | 225mm from baseline measured along bow transom extension, to | 40 |  | 55 |
|  | nearest point of forefoot. |  |  |  |
|  |  |  |  |  |
| 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 2170 mm 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 |
|  |  |  |  |  |
| 48 |  |  |  |  |
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## Miracle Association Measurements 2024

|  | CENTREBOARD AND RUDDER |  |  |
| :---: | :---: | :---: | :---: |
| 60 | Width of centreboard at keel when fully extended. | - | 385 |
| 61 | Width of centreboard at 610 mm from keel when fully extended and | - | 300 |
|  | measured at $90^{\circ}$ to a leading edge. |  |  |
|  |  |  |  |
|  |  |  |  |
| 62 | Depth of centreboard below keel when fully extended | - | 950 |
|  |  |  |  |
| 63 | Thickness of centreboard except where bevelled. | 16 | 20 |
|  |  |  |  |
| 64 | Width of bevel on all edges of centreboard. | - | 50 |
|  |  |  |  |
| * 65 | Distance from transom to leading edge of centreboard where it cuts | 2120 | 2140 |
|  | keel line when fully extended |  |  |
|  |  |  |  |
| 66 | Extension of rudder blade below keel at transom. | - | 650 |
|  |  |  |  |
| 67 | Width of rudder blade for a minimum of 200mm of its length | 200 |  |
|  |  |  |  |
| 68 | Thickness of rudder blade | 16 | 20 |
|  |  |  |  |
| 69 |  | - |  |
|  |  |  |  |
| 70 | The stock, tiller and tiller extension are optional in size and shape and |  |  |
|  | shall be constructed of wood, metal, or glass fibre and resin |  |  |
|  | as required. |  |  |
|  |  |  |  |
| 71 | Foils to be constucted from ply, hardwood or glass fibre and resin |  |  |
|  |  |  |  |
| 72 |  |  |  |
|  |  |  |  |
| 73 |  |  |  |
|  |  |  |  |
| 74 | 70. to 79. Spare |  |  |
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| 75 |  |  |  |
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## Miracle Association Measurements 2024

|  | SPARS |  |  |
| :---: | :---: | :---: | :---: |
| 80 | Weight of mast with all fixed fittings and halyards but excluding | 5.5 kg . | 8.0kg |
|  | shrouds and forestay. |  |  |
| 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 | - | 2450 |
|  | with boom fitted to gooseneck. (Round Section Mast) |  |  |
| 89a | Distance of centre of eye locating kicking strap to mast tube with | 532 | 548 |
|  | boom fitted to mast gooseneck. (Round Section Mast) |  |  |
| 88b | Distance of inner edge of black band on boom to aft side of mast | - | 2440 |
|  | tube with boom fitted to gooseneck. (Oval Section Mast) |  |  |
| 89b | Distance of centre of eye locating kicking strap to mast tube with | 522 | 538 |
|  | boom fitted to mast gooseneck. (Oval Section Mast) |  |  |
|  | Round Section Boom |  |  |
| 90a | Diameter of boom. | 44 | 50 |
|  | 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 | - | 1532 |
|  | including fittings. |  |  |
| 91b | Overall length of spinnaker pole including end fittings | - | 1525 |
| 92 | Centre of shroud tang eyes to top of spinnaker halyard sheave in | - | 250 |
|  | (or T terminals) |  |  |

