

1979

# International 5.5 Metre Class Certificate of Rating

Yacht's name .....	"NANGARINA"	Classification society	Lloyd's
Sail number .....	KA-43	Expiration date of classification certificate	3 <sup>RD</sup> July 1986.
Owner .....	Mr. Tim. HERBERT	Measurements or partial remeasurements by N. measurer, signature & date	3 <sup>RD</sup> July 1984. <i>David Reynolds</i>
Owner's club .....	Royal Prince Alfred Yacht Club	.....	.....
Designer .....	Mr. W. Muir	.....	.....
Date completed .....	29 <sup>TH</sup> JUNE 1984	.....	.....
Condition of water when marks were sighted	State fresh or salt	.....	
	SALT	.....	
Difference in immersion (class rule 5)	.....	..... (metres)	
Has designer's or builder's declaration been supplied	.....	.....	
I declare that the particulars given on this certificate are correct at this date	.....	Expiration date of rating certificate	3 <sup>RD</sup> July 1986
Signature of measurer	<i>David Reynolds</i>	.....	.....
Signature of designer or builder	<i>W. Muir</i>	.....	.....
Signature of owner or representative	<i>W. Muir</i>	Re-rating	.....
Certificate authorised by	<i>[Signature]</i>	Date	3/7/84 for A.

AUSTRALIAN YACHTING FEDERATION  
 (National Authority)  
 AUSTRALIAN YACHTING FEDERATION  
 33 PEEL STREET  
 MILSON'S POINT 2061  
 TEL. No. 92 1641

	Actual <sup>1)</sup>	Rule limits	Rule No.
<b>HULL</b>			
Immersion checked in salt/fresh water	Date		7:07
Weight of inside ballast placed at <u>26<sup>th</sup> June 1984</u>	<u>NIL.</u>	xx)	6:33
Beam	<u>1.902</u>	min. 1.90 m	7:0
Draft	<u>1.350</u>	max. 1.35 m	7
Freeboard at bow girth station	<u>.512</u>		
" at stern girth station	<u>.769</u>		
" at midship mark	<u>.618</u>		
" average	<u>.633</u>	min. 0.63 m	
Keel, ballast material	<u>LEAD</u>	lead or iron	10
" ht. of round at bottom	<u>.205</u>	max. 75mm	10
" width at max. section 1 metre below L.W.L.	<u>.150</u>	min. 150mm	10
Stern angle	<u>135.5</u>	min. 1 in 5.5	12
Round of beams	<u>0</u>	max. 7mm in 305mm	13
Tumble home	<u>NIL.</u>		14
2% of max. beam	<u>---</u>		
Excess tumble home	<u>subtract</u>		
	<u>NIL</u>	3 x excess added to rating	14
Area of deck openings	<u>2.214</u>	max. 2.25 m <sup>2</sup>	24
Cockpit forward of L1 mark	<u>2.158</u>	min. 1.75 m	25
Breadth of side decks	<u>.466</u>	min. 35 cm	26
<b>SAILS &amp; RIGGING</b>			
Height of sailplan above covering board level	<u>11.099</u>	max. 11.10 m	16
" " boom (black band) above covering board level	<u>.848</u>	max. 0.85 m	17
" " fore triangle above covering board level (1)	<u>8.880</u>	max. 8.88 m	16
Base of fore triangle (J) (Deck black band to be checked)	<u>2.647</u>	max. 0.50 x S	16
Min. headsail for measurement purposes = 0.5 x l x J x 80%	<u>9.402</u>		15
Spinnaker, halliard above forestay	<u>.100</u>	max. 10 cm	20
" " out from mast	<u>.028</u>	max. 3 cm	20
" breadth of halt the foot	<u>3.308</u>	max. 1.25 x J	20
Storm spinnaker, breadth of halt the foot	<u>2.647</u>	max. J	20
Spinnaker boom length	<u>2.647</u>	max. J	21
Mast diameter at $\frac{1}{2}$ ht. of fore triangle, round mast	<u>104 x 140</u>	min. 11.5 cm	22
" " at deck " "	<u>104 x 140</u>	min. 10.9 cm	22
" " at jib halliards " "	<u>95 x 114</u>	min. 9.2 cm	22
" " at top " "	<u>105 x 102</u>	min. 5.8 cm	22
(The athwartship diameter of oval masts may be reduced by 10% of the above, but the sectional areas shall not be less)			
Weight of mast with fixed fittings <u>TIP WT.</u>	<u>17.4</u>	min. 40 kgs	22
Centre of gravity of mast above covering board level	<u>N/A.</u>	min. 38% of mast ht.	22
Boom depth	<u>.106</u>	max. 15.2 cm	23
Boom width	<u>.072</u>	min. 3.8 cm	23
<b>MISCELLANEOUS</b>			
Weight of anchor	<u>11.34</u>	max. 13kgs min. 11kgs	26
Length of warp	<u>30</u>	min. 30 m	26
Top of 1 marks above water with yacht in racing trim	<u>---</u>		5

	Actual measures		Rule limits
<b>LENGTH L FOR RATING</b>			
Overall length L.O.A.		9.389	
Bow overhang to L <sub>1</sub>	1.006		
Stern overhang to L <sub>1</sub>	1.040		
Total overhang	add	2.046	
Measured length L <sub>1</sub>		subtract	
Girth at bow	.714		
Twice vertical height at bow (=0.550 m)	.550		
Bow girth difference	subtract	7.343	
Girth at stern	1.581		
Twice vertical height at stern	.860		
Stern girth difference	subtract	.721	
1/3 stern girth difference	div. by 3	.240	
Length L for rating formula	add	7.747	min. 0.165 m (rule 3)
<b>SAIL AREA FOR RATING</b>			
Largest headsail = 0.5 x _____ (luff) x _____ (perp)		9.447	min. see next page
Mainsail = 0.5 x <u>10.251</u> (H) x <u>3.625</u> (B)		18.574	min. 26.5 m <sup>2</sup> (rule 7)
Total sail area S	add	28.026	max. 29.0 m <sup>2</sup>
$\sqrt{S}$		5.294	
<b>DISPLACEMENT</b>			
Weight of yacht (date when weighed <u>26<sup>th</sup> JUNE 1984</u> )		1765	
Displacement D = weight div. by 1025.21 kg/m <sup>3</sup>		1.722	min. 1.7 m <sup>3</sup> (rule 7)
$\sqrt[3]{D}$		1.199	max. 2.0 m <sup>3</sup>
<b>RATING</b>			
Rating calc'd according to formula		5.499	
3 x tumble home excess	NIL		(rule 14)
FINAL RATING	add	5.499	

