

KA/45

1979

# International 5.5 Metre Class Certificate of Rating

Yacht's name ... <i>ARUNGA IX</i> .....	Classification society <i>Lloyds.</i>	
Sail number ... <i>KA-45</i> .....		
Owner ... <i>F. TOLhurst</i> .....	Expiration date of classification certificate <i>July 1987.</i>	
Owner's club ... <i>Royal Prince Alfred Yacht Club.</i> .....	Measurements or partial remeasurements by N.A. Measurer, signature & date	
Designer ... <i>B. LEXAN</i> .....		<i>WEIGHED AND</i> .....
Date completed ... <i>JUNE 1985</i> .....		<i>SIGHTED 13-6-85</i> .....
Condition of water when marks were sighted State fresh or salt ... <i>SALT</i> .....	<i>David Hayward</i> .....	

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
Signature of measurer <i>David Hayward</i>	<i>13<sup>th</sup> JUNE 1987</i> .....
Signature of designer or builder <i>B. Lexan</i>	
Signature of owner or representative	Re-rated .....
.....	.....

Certificate authorised by *[Signature]* Date *7/85* for *AUSTRALIAN YACHTING FEDERATION*

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

	Actual <sup>(x)</sup>	Rule limits	Rule No.
<b>HULL</b>			
Immersion checked in salt/ <del>fresh</del> water	SALT	date 13-6-85	5;27
Weight of inside ballast placed at _____	NIL	xx)	6;33
Beam	1.465	min. 1.90 m	7;9
Draft	1.350	max. 1.35 m	7
Freeboard at bow girth station	0.759		
" at stern girth station	0.599		
" at midship mark	0.557		
" average	0.638	min. 0.63 m	
Keel, ballast material	LEAD	lead or iron	10
" ht. of round at bottom	0.035	max. 75mm	10
" width at max. section 1 metre below L.W.L.	0.168	min. 150mm	10
Stern angle	1:4.92	min. 1 in 3.5	12
Round of beams	3:305	max. 7mm in 305mm	13
Tumble home	NIL		14
2% of max. beam	N/A		
Excess tumble home	subtract		
Area of deck openings	NIL	3 x excess added to rating	14
Cockpit forward of L1 mark	2.250	max. 2.25 m <sup>2</sup>	24
Breadth of side decks	1.812	min. 1.75 m	25
	0.372	min. 35 cm	24
<b>SAILS &amp; RIGGING</b>			
Height of sailplan above covering board level	11.100	max. 11.10 m	16
" " boom (black band) above covering board level	0.850	max. 0.85 m	17
" " fore triangle above covering board level (1)	8.880	max. 8.88 m	16
Base of fore triangle (J) (Deck black band to be checked)	2.662	max. 0.50 x J	16
Min. headsail for measurement purposes = 0.5 x l x J x 80%	9.455		15
Spinnaker, halliard above forestay	0.909	max. 10 cm	20
" " out from mast	0.021	max. 3 cm	20
" breadth of half the foot	3.387	max. 1.25 x J	20
Storm spinnaker, breadth of half the foot	2.662	max. J	20
Spinnaker boom length	2.662	max. J	21
Mast diameter at 1/3 ht. of fore triangle, round mast	142+103	min. 11.5 cm	22
" " at deck	142+103	min. 10.9 cm	22
" " at jib halliards	125+103	min. 9.2 cm	22
" " at top	77+82	min. 5.8 cm	22
(The athwartships diameter of oval masts may be reduced by 10% of the above, but the sectional areas shall not be less)			
<del>Weight of mast with fixed fittings</del>	19.5	min. 40 lbs 16K93	22
Centre of gravity of mast above covering board level	-	min. 30% of mast ht.	22
Boom depth	103	max. 15.2 cm	23
Boom width	73.5	min. 3.8 cm	23
<b>MISCELLANEOUS</b>			
Weight of anchor	12.4	max. 13kgs min. 11kgs	26
Length of warp	30m	min. 30 m	26
Top of 1 marks above water with yacht in racing trim	YES		5

	Actual measures		Rule limits
<b>LENGTH L FOR RATING</b>			
Overall length L.O.A.		9.450	
Bow overhang to L <sub>1</sub>	1.047		
Stern overhang to L <sub>1</sub>	1.052		
Total overhang	add	2.099	
Measured length L <sub>1</sub>		subtract	
Girth at bow	.698	7.351	
Twice vertical height at bow (=0.530 m)	.550		
Bow girth difference	subtract	.165	min. 0.165 m (rule 3)
Girth at stern	1.683		
Twice vertical height at stern	.944		
Stern girth difference	subtract		
1/3 stern girth difference	.739		
Length L for rating formula	div. by 3	.246	min. 0.234 m (rule 3)
	add	7.762	
<b>SAIL AREA FOR RATING</b>			
Largest headsail = 0.5 x _____ (luff) x _____ (perp)		9.130	min. see next page
Mainsail = 0.5 x 10.25 (H) x 3.791 (B)		19.428	min. 26.5 m <sup>2</sup> (rule 7)
Total sail area S		add	max. 29.0 m <sup>2</sup>
$\sqrt{S}$		5.344	
<b>DISPLACEMENT</b>			
Weight of yacht (date when weighed 13-6-85)		1861.25	
Displacement D = weight div. by 1025.21 kg/m <sup>3</sup>			min. 1.7 m <sup>3</sup> (rule 7)
$\sqrt[3]{D}$		1.22	max. 2.0 m
<b>RATING</b>			
Rating calc'd according to formula		5.498	
3 x tumble home excess		NIL	(rule 14)
FINAL RATING		add	
		5.498	

