



12

INTERNATIONAL TWELVE METRE CLASS

| | | | |
|---|--|---------------|-------------|
| Yacht's Name | <u>KZ 3</u> | | |
| National letters and Sail Number | <u>KZ 3</u> | Club | |
| Designer | <u>Farr/Davidson/Holland</u> | | |
| Builder | <u>McMullin and Wing</u> | Building Year | <u>1985</u> |
| Owner | <u>Gunther Buerman</u> | | |
| Owner's Address | <u>145 Harrison Ave Newport R.I. 03840 USA</u> | | |
| Lloyds R class certificate (Number or Date) | | | |

RATING CERTIFICATE

This yacht has been measured by measurer(s) appointed by the International Twelve Metre Association and has been found to rate not more than 12.000 metres.

This certificate is dated July 18, 2017

Measurer Andrew Williams Signature Andrew Williams

Valid until July 18, 2019


Supersedes July 2, 2015

Signature [Handwritten Signature]
ITMA Technical Director



Stamp of Authority of the International Twelve Metre Association

RATING CALCULATION

| | | | |
|---|-----------------|---------------|---|
| OVERALL LENGTH | | | 19.131 |
| Overhang Forward to L1 | | 1.722 | |
| Overhang Aft to L1 | | 1.964 | |
| Total Overhang (Subtract) | | 3.686 | |
| MEASURED LENGTH (L1 L1) | | | 15.445 |
| Girth at Bow | | 1.550 | |
| Twice vertical Height at Bow (Subtract) | | 1.200 | |
| O at Bow | | 0.350 | |
| Add 1 1/2 O at Bow (min 0.540 m) | | 0.540 | |
| Girth at Stern | | 3.346 | |
| Twice vertical Height at Stern (Subtract) | | 1.840 | |
| O at Stern | | 1.506 | |
| Add 1/3 O at Stern (min 0.400 m) | | 0.502 | |
| Add any penalty (Displacement) | | 0.019 | |
| Sum of Length and Girth Corrections | | | 16.506 |
| Age Date and Allowance | 1985 | Allowance | 1.000 |
| CORRECT LENGTH L | | | 16.506 |
| Skin d to d1 Port | | 3.385 | |
| Chain d to d1 Port | | 3.380 | |
| d Port | | 0.005 | |
| Skin d to d1 Starboard | | 3.388 | |
| Chain d to d1 Starboard | | 3.384 | |
| d Starboard | | 0.004 | |
| Add d | | 0.009 | |
| Add GIRTH 2 d | | | 0.018 |
| Mean Freeboard Bow O | Actual | 1.372 | 1.372 |
| Mean Freeboard Midship d | Actual | 1.270 | 1.143 |
| Mean Freeboard Stern O | Actual | 1.100 | 1.100 |
| Sum of Freeboards | | | 3.615 |
| Subtract FREEBOARD, F | | | 1.208 |
| Add SAIL AREAS (Square root) | | | 13.116 |
| TOTAL OF MEASUREMENTS | | | 28.432 |
| PENALTY (Draught) | | 0.000 | |
| RATING | | | 11.997 |
| Date and place of Measurement | | July 18, 2017 | |
| Measurer's Name(s) | Andrew Williams | Signature |  |

PENALTIES

| | | |
|--|--------|---------------|
| Overhang Forward to L | 2.546 | |
| Overhang Aft to L | 2.684 | |
| Subtract from overall length | 5.230 | |
| Difference of imersion from salt to fresh water | | |
| WATERLINE LENGTH | | 13.901 |
| Minimum Displacement for Zero Penalty [m3] | 25.159 | |
| Minimum Weight for Zero Penalty [tonnes] (Water of sg 1.025) | 25.788 | |
| WEIGHT [tonnes] | | 25.737 |
| Equivalent LWL (for Displ. < min.) | 13.891 | |
| Difference | 0.010 | |
| DISPLACEMENT PENALTY (add to L) | | 0.019 |
| DRAUGHT (actual) | 2.712 | |
| Max. Draught for Zero Penalty | 2.724 | |
| Difference (if positive) | 0.000 | |
| DRAUGHT PENALTY (add to Rating) | | 0.000 |
| BEAM (Min) | 3.600 | |
| Max Beam at 1/3 of Midship Freeboard | 3.600 | |
| Difference (if positive) | 0.000 | |
| BEAM PENALTY (add to L) | | 0.000 |
| Tumblehome Max. (2 x 2% of Extr. Beam) | 0.000 | |
| Extreme Beam | | |
| Beam at deck | | |
| Difference (if positive) | 0.000 | |
| TUMBLEHOME PENALTY (add to Rating) | | 0.000 |

Date and place of Measurement

July 18, 2017

Measurer's Name(s)

Andrew Williams

Signature



Yacht's name : KZ 3

KZ 3

July 18, 2017

SAIL PLAN

| | | | | | |
|---------------------------|--------------------------------------|---------------------|--------------------------------------|-----|-------------------------------------|
| Max Height of Sail Plan = | <input type="text" value="25.000"/> | J= | <input type="text" value="7.609"/> | I = | <input type="text" value="18.750"/> |
| Boom Height = | <input type="text" value="1.550"/> | A= | <input type="text" value="23.450"/> | B= | <input type="text" value="9.500"/> |
| Rated Mainsail Area | <input type="text" value="111.388"/> | Spi boom= | <input type="text" value="7.609"/> | √S= | <input type="text" value="13.116"/> |
| Rated Foretriangle Area | <input type="text" value="60.634"/> | Propeller allowance | <input type="text" value="1.000"/> | | |
| TOTAL RATED SAIL AREA | <input type="text" value="172.022"/> | Corrected sail area | <input type="text" value="172.022"/> | | |

SAIL LIMITS

| | | | | |
|---------------------|-------------------------------|-------------------------------------|-------------------|-------------------------------------|
| Mainsail max girth: | 1/2 height (68%) | <input type="text" value="6.460"/> | 3/4 height (41%) | <input type="text" value="3.895"/> |
| Genoa: | max. foot length (J + 4.8m) | <input type="text" value="12.409"/> | | |
| Spinnaker: | 1/2 foot max breadth (125% J) | <input type="text" value="9.511"/> | max. luff length= | <input type="text" value="18.688"/> |

Spar Measurement

| | | | | | |
|----------------------------------|---|--|--|---|------------------------------------|
| MAST (material) | <input type="text" value="Aluminium"/> | Mast Weight | <input type="text" value="456"/> | CG pos. | <input type="text" value="9.506"/> |
| Mast dimensions [mm] | Deck <input type="text" value="352x249"/> | Half-Height <input type="text" value="352x250"/> | Jib-Halyard <input type="text" value="283x205"/> | Head <input type="text" value="170x125"/> | |
| Sections area [cm ²] | <input type="text" value="688"/> | <input type="text" value="691"/> | <input type="text" value="456"/> | <input type="text" value="167"/> | |

Engine/Propeller Installation


| | | | |
|--------------------------------|-----------------------------------|----------------------|-----------------------------------|
| Engine and propeller weight | <input type="text" value="None"/> | Propeller diameter = | <input type="text" value="None"/> |
| Minimum boat speed with engine | <input type="text"/> | Propeller position = | <input type="text"/> |
| Engine model and power | <input type="text"/> | | |

Flotation

| Internal Ballast | Amount | From Stem |
|------------------|---------|-----------|
| Lead Pigs | 220 kgs | 10.3 |
| Lead Pigs | 280 kgs | 10.1 |
| | | |
| | | |
| | | |
| | | |

Measurer's Notes

New Keel 2006

| | | |
|-------------------------------|-----------------|---|
| Date and place of Measurement | July 18, 2017 | |
| Measurer's Name(s) | Andrew Williams | Signature  |