Introduction to the work book
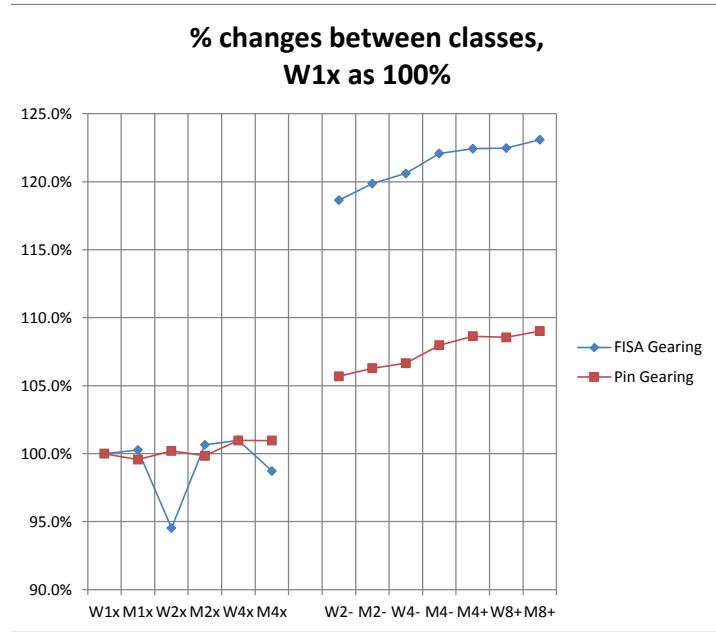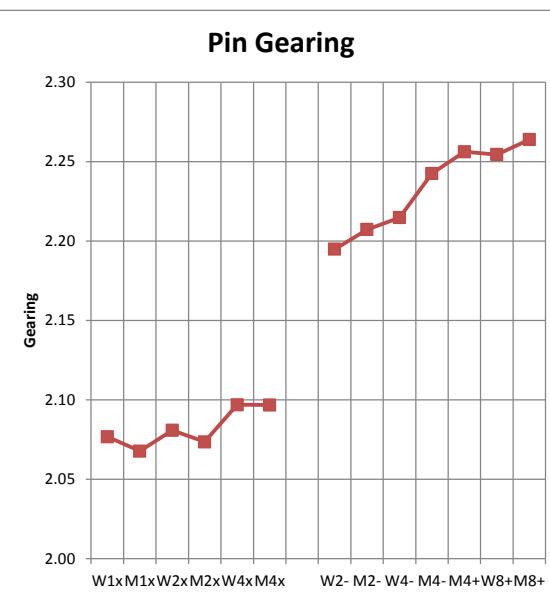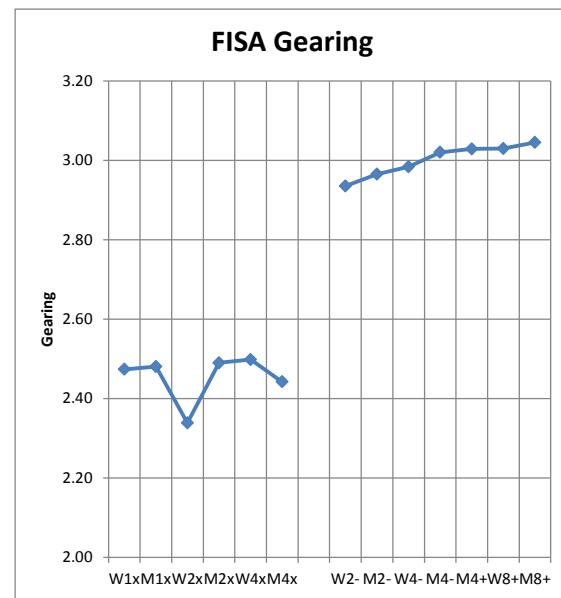
The data is recorded on a separate worksheet for each boat type and sorted by Male/Female (M/W) and listed in alphabetical order, except 1x is in finish order.   In addition to the recorded data there are 10 columns of derived data and many percentages and averages which have highlighted data entry errors as well as some interesting comparisons.

1. For all crew boats the average rig is calculated and then a separate "Analysis" sheet summarises the data for each boat class and calculates 2 types of gearing and is sorted to finish order.
2. The "Analysis" sheets also contain the race results data from which boat velocity is calculated and a table counting the makers, types and shapes of the boats riggers, oars and spoons.
3. The "Makers and Types" sheet consolidates this latter for all classes and calculates market share percentages.
4. The "Class Comparison" sheet compares the classes with each other calculating percentages to highlight differences. These are illustrated in the "Comparison Graphs" sheet.
5. The "Measurement" worksheet shows data on numbers of boats and seats measured.
6. The "Gearing" sheet compares the gearing between classes using FISA and Pin gearing. It includes graphs.

Data recorded

1) General Information
   a) Date of recording
   b) Boat ID. The majority of boats had no identifying number apart from their country code
   c) Full/Partial survey. A survey is partial when not all data was collected for the boat and oars. This was usually because the oars were not found but occasionally through forgetting to record all the data.
   d) Boat type / event. Male or Female and boat type e.g. W4x
   e) Sweep / scull. This item confirmed / duplicated information in d)
   f) Country. The three letter country code
2) Manufacturer's information
   a) Boat Make. The following three letter codes were used to identify the boat makes: Emp, Fil, Swi, Kwi, Hud, Win, Flu, Sch, Ves, Syk for Empacher, Filippi, Swift, Kiwi (KIRS Ltd), Hudson, Wintech, Fluid Design, Schellenbacher, Vespoli, Sykes.
   b) Rigger Make. This was almost always the same as the boat maker or assumed to be if not labelled. The only alternative found was Card Douglas (CD)
   c) Rigger type. This was recorded as material used and shape. Material was either CF for Carbon Fibre or Al for Aluminium and shape was W for Wing and/or number of stays e.g. CF W is carbon fibre Wing, CF W1 is Carbon Fibre Wing one backstay, Al 3 is Aluminium two stay. A few boats had the wing set on the bow end of the cockpit so they are recorded as e.g. CF W(bow)
   d) Blade make: the following three letter codes were used to identify the blade maker: C2, Dre, Cro, Emp, and Bra for Concept2, Dreher, Croker, Empacher, and Braca.
   e) Blade shape: the manufacturers codes or other were used to record blade shape so
      i) C2: BB for Big Blade, S2 for Smoothie2 and F2S for Fat2 Smoothie. Vortex Edge was recorder separately as V to distinguish between S2 and S2 V which are different shapes and BB and BBV which are the same shape. F2S always has a vortex edge.
      ii) Dre: Apex, ApexR, BB;
      iii) Cro: Sli for Slick, Cle for Cleaver, DSn for Droop snoot
      iv) Emp: BB for Big Blade, Sm for Smoothie
      v) Bra: BB for Big Blade, W for Wing Blade

      No Macon shapes were found.

The following were recorded to the nearest millimetre or tenth of a degree for each seat in the boat. Although measuring to nearest millimetre the accuracy of some measures like line of work to heels, depth of heels, oar length will be less due to the measuring system of tapes and setsquares or the nature of the surfaces being measured – see point 5 below for estimated accuracy of each of the measures.

1) Span and Arc position
   a) Span for all sculling boats
   b) Spread for all sweep boats
   c) Distance through the work of the front of the seat when set at front stops
   d) Line of work to the heels
   e) Line of work to toes
   f) Foot stretcher angle to nearest tenth of a degree using a digital pitch gauge.
2) Relative height data
   a) Height of swivel above seat starboard
   b) Height of swivel above seat port
   c) Seat below saxboard
   d) Heel below saxboard
3) Splay of feet
   a) Distance between heels
   b) Distance between toes
   c) Shoe length
   Only one boat had adjustable splay shoes
4) Oar Data
   a) Overall length of oar
   b) Oar outboard length
   c) Oar inboard length
   d) Blade length from collar to tip
   e) Blade height measured at maximum width
5) Estimated accuracy of the measures
   a) Span +/- 1.5mm
   b) Spread +/- 1.5mm
   c) Distance through work +/-5mm
   d) Line of work heels+/-10mm
   e) Line of work toes +/- 7mm
   f) Foot stretcher angle +/- 0.2 degrees
   g) Swivel above seat +/- 2mm both sides
   h) Seat below sax +/- 2mm
   i) Heel below sax +/- 5mm
   j) Heel distance cm +/- 5mm
   k) Toe distance cm +/- 5mm
   l) Shoe length cm +/- 5mm
   m) Overall oar length +/- 3mm
   n) Outboard +/- 3mm
   o) Inboard +/- 3mm
   p) Blade length +/- 3mm
   q) Blade height +/- 3mm

Derived data

Brown font is used for all derived data which is as follows

1. Seat to heels – horizontal. Line of work to heels minus Distance through the work
2. Seat to toes – horizontal .Line of work to toes minus Distance through the work.
3. Seat above heels – vertical. Heels below saxboard minus seat below saxboard.
4. Seat above ball of foot. This assumes that the shoes fit the athlete and the ball of foot is two thirds of the shoe length from the heel. This is calculated using the foot stretcher angle and the foot splay angle – hence the complicated formula (can someone check please?)
5. Foot splay angle. This is calculated from the shoes length as hypotenuse and the difference between the distances between the heels and toes of the shoes as the opposite.
6. Handle overlap. This is the usual measure for sculls held horizontal at the orthogonal and for sweep it shows how much the oar handle crosses the boat centre line.
7. Sill height difference L/R.   This indicates whether the rig in sculling allows for Left hand over/ overlapping/behind right. In sweep it is less meaningful but it measures whether the average of starboard side sills is higher than the portside sills.
8. FISA Gearing. This is the gearing measure designed by Carl Adam and used in the majority of rigging guides. It is nominally the outboard divided by the spread in sweep (or half the span in sculling). This survey uses the definition from the 2006 survey which is (outboard -2)/ spread for sweep and (outboard -2) / (half span) for scull. The -2 allows for the distance of the pin from the collar because the face of the swivel is about 4 cm wide.
9. Pin Gearing. This is the gearing measure normally used in biomechanical analyses. Its assumes the oar is a first order lever with the fulcrum at the pin and forces are applied at the centre of the handle and the centre of the spoon, the gearing being the outboard divided by the inboard. For scull the inboard is defined as measured inboard less 6 cm to middle of handle plus 2 cm as the centre of the pin is 2 cm beyond the collar. The outboard is measured outboard minus 2 cm and minus half the blade length. For sweep the formula is the same except that it is inboard less 15 cm, assuming that the centre of force is between the two hands 15 cm from the end of the handle.
10. Boat velocity. This is calculated from the race times divided by 2000 m.

1 General Information

Date	Boat ID?	Full/Partial Survey (F/P)	Boat type / Event	Sweep/Scull (X / -)	Country

2 Manufacturer's Information

Boat Make	Rigger Make	Rigger Type	Blade Make

Boat type (circle)

1x	2x	4x
2-	4-	8+

Recorded on PC (Tick)

3 Span and Arc position　　4 Relative Height Data　　5 Splay　　6 Oar data

Position in Boat	Span (cm) Scull	Spread (cm)Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Heel distance (cm)	Toe distance (cm)	Shoe length (cm)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				

Measure to 0.1 cm

Makes and shapes codes

Boat	Emp	Fil	Swi	Kiw	Hud	Win	Flu	Sch	Ves	Syk
Rigger	CF	Al	and Wing or number of stays e.g. CF Wing or AL 2 stay					CD = Carl Douglas		
Blade	C2		Dre			Cro			Emp		Bra
Shape	BB	S2	F2S	Apex	ApexR	BB	Sli	Cle	DSn	BB	Sm	Bra

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1 General Information

Date	Boat ID?	Full/Partial Survey (F/P)	Boat type / Event	Sweep/Scull (X / -)	Country

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3 Span and Arc position　　4 Relative Height Data　　5 Splay　　6 Oar data

Position in Boat	Span (cm) Scull	Spread (cm)Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Heel distance (cm)	Toe distance (cm)	Shoe length (cm)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				

Measure to 0.1 cm

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Shape	BB	S2	F2S	Apex	ApexR	BB	Sli	Cle	DSn	BB	Sm	Bra

	1 General Information					2 Manufacturer's Information				3 Span and Arc position									4 Relative Height Data						5 Splay				6 Oar data							7 Gearing		8 Velocity
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
02.août	1	P	M1x	1	07:03.41	GER	Fil	Fil	Al 2		1	164.0		22.0	43.0	65.2	42.5	21.0	43.2	17.4	15.8	0.8	15.0	14.2	0.5	10.0	13.5	30.5	6.6	not found								1.6			4.72
02.août	2	F	M1x	2	07:05.42	GRE	Emp	Emp	CF 2	C2	1	159.2		6.5	37.0	62.0	41.0	30.5	55.5	16.5	15.3	0.2	15.9	15.7	1.3	9.7	13.3	33.0	6.3	287.0	198.0	89.0	46.0	21.5	S2		22.8	1.2	2.46	2.04	4.70
02.août	3	F	M1x	3	07:05.8	UKR	Fil	Fil	CF 2	Cro	1	158.7		7.6	41.0	62.5	43.5	33.4	54.9	16.4	15.2	0.4	14.9	14.5	0.6	9.8	13.2	30.3	6.4	290.0	202.0	88.0	46.0	21.5	S2		21.3	1.2	2.52	2.11	4.70
02.août	4	F	M1x	4	07:06.10	IRL	Fil	Fil	Al W	C2	1	159.0		19.8	30.0	54.0	40.0	28.3	51.2	18.2	17.7	1.7	17.6	15.9	3.1	11.0	14.0	30.0	5.7	288.5	200.0	88.5	44.0	21.5	BB		22.0	0.5	2.49	2.08	4.69
	5				07:18.6	LAT	did not measure																																		4.56
06.août	6	F	M1x	6	07:21.4	SUI	Fil	Fil	Al 3	C2	1	159.5		15.0	43.0	65.5	46.4	28.0	50.5	17.8	16.9	1.8	18.0	16.2	1.2	11.0	13.0	31.0		289.0	200.5	88.5	44.0	21.5	BB		21.5	0.9	2.49	2.09	4.53
	7			7	07:21.9	CRO	missing sheet?																																		4.53
01.août	8	F	M1x	8	07:22.9	ZIM	Swi	Swi	Al 2	C2	1	161.0		12.2	37.0	58.4	41.0	24.8	46.2	16.2	15.5	3.1	18.3	15.2	1.7	10.0	14.0	31.0	7.4	289.0	200.5	88.5	46.0	21.5	S2	V	20.0	0.7	2.47	2.08	4.52
03.août	9	F	M1x	9	07:25.5	CZE	Fil	Fil	CF 2	C2	1	159.0		16.2	33.0	58.0	45.0	16.8	41.8	14.5	14.8	1.0	17.0	16.0	0.9	10.0	12.0	32.0	3.6	291.5	201.3	90.2	46.0	21.5	S2	V	25.4	-0.3	2.51	2.05	4.49
02.août	10	F	M1x	10	07:27.9	AZE	Emp	Emp	CF 2	C2	1	160.0		18.0	40.0	61.5	47.0	22.0	43.5	17.3	15.5	1.0	16.8	15.8	0.2	9.5	13.0	32.0	6.3	287.5	198.5	89.0	46.0	21.5	S2		22.0	1.8	2.46	2.04	4.46
02.août	11	F	M1x	11	07:32.5	JAP	Fil	Fil	Al 2	C2	1	158.0		21.0	37.0	60.0	42.0	16.0	39.0	14.9	16.0	1.0	14.3	13.3	0.2	9.6	11.0	29.3	2.7	288.0	200.1	87.9	46.0	21.5	S2		21.8	-1.1	2.51	2.09	4.42
	12			12	07:33.3	BLR	no rack listed																																		4.41
02.août	13	F	M1x	13	07:27.5	KAZ	Win	Win	Al W	C2	1	158.0		17.0	37.0	57.7	44.0	20.0	40.7	18.4	17.8	2.9	22.2	19.3	5.2	10.5	14.5	30.5	7.5	288.0	200.0	88.0	46.0	21.5	S2	V	22.0	0.6	2.51	2.08	4.47
02.août	14	F	M1x	14	07:31.0	TUN	Win	Win	Al W	C2	1	159.0		12.6	31.6	53.0	45.6	19.3	41.1	17.1	16.1	2.8	20.8	18.0	3.7	11.5	14.8	30.0	6.3	288.5	200.5	88.0	46.0	21.5	F2S	V	21.0	1.0	2.50	2.09	4.43
03.août	15	F	M1x	15	07:32.4	ARG	Fil	Fil	CF W	C2	1	160.1		17.5	38.0	60.5	41.0	20.5	43.0	17.4	16.1	1.8	17.4	15.6	3.4	10.0	13.0	28.0	6.1	288.2	198.2	90.0	46.0	21.5	S2		23.9	1.3	2.45	2.01	4.42
06.août	16	F	M1x	16	07:34.1	EST	Fil	Fil	Al 3	C2	1	158.3		10.2	38.0	60.0	43.4	19.9	41.6	18.3	16.0	2.2	17.4	15.2	0.8	10.5	12.5	31.5	3.6	287.5	199.0	88.5	46.0	21.5	S2	V	22.7	2.3	2.49	2.06	4.40
03.août	17	F	M1x	17	07:35.3	NZL	Fil	Fil	Al W	Cro	1	160.0		13.0	38.5	60.3	41.5	25.5	47.3	16.1	14.6	1.9	20.0	18.1	4.5	10.0	17.0	31.0	13.0	288.0	200.0	88.0	44.0	22.0	Sli		20.0	1.5	2.48	2.10	4.39
03.août	18	P	M1x	18	07:39.0	LTU	Fil	Fil	Al 3		1	162.0		19.8	48.0	72.0	44.8	28.2	52.2	17.5	16.6	1.1	17.6	16.5	2.0	9.5	13.0	31.0	6.5									0.9			4.36
31.juil	19	F	M1x	19	07:24.0	RSA	Fil	Fil	Al W1	C2	1	158.5		9.9	39.0	61.7	43.1	29.1	51.8	17.0	16.0	0.5	16.7	16.2	3.0	10.0	14.0	29.0	7.9	287.0	199.0	88.0	45.5	21.5	S2		21.5	1.0	2.49	2.07	4.50
03.août	20	F	M1x	20	07:27.1	CHI	Fil	Fil	Al W	C2	1	159.2		7.8	32.0	55.0	42.8	24.2	47.2	18.0	16.6	1.8	18.1	16.3	3.2	9.0	12.0	29.0	5.9	288.5	200.0	88.5	44.0	21.5	BB		21.8	1.4	2.49	2.08	4.47
03.août	21	F	M1x	21	07:28.0	USA	Hud	Hud	Al W1	C2	1	159.5		10.8	38.8	59.0	43.0	28.0	48.2	15.6	14.9	0.7	16.7	16.0	3.7	11.0	14.0	27.0	6.4	287.0	198.0	89.0	46.0	21.6	S2		22.5	0.7	2.46	2.04	4.46
06.août	22	F	M1x	22	07:28.1	RUS	Emp	Emp	Al W1	Emp	1	160.5		12.0	34.0	59.0	43.7	22.0	47.0	15.7	14.0	0.3	17.3	17.0	2.0	10.0	12.5	32.5	3.5	288.5	199.5	88.0	44.0	22.0	Sm		21.5	1.7	2.46	2.06	4.46
02.août	23	F	M1x	23	07:28.2	MON	Fil	Fil	Al W	C2	1	160.4		15.9	37.2	61.0	43.0	21.3	45.1	14.6	14.5	1.0	17.6	16.6	3.0	10.0	14.8	30.0	9.2	287.7	198.9	88.8	41.5	21.5	S2		21.2	0.1	2.46	2.08	4.46
06.août	24	F	M1x	24	07:40.1	BRA	Fil	Fil	Al W1	C2	1	159.0		21.3	38.5	61.4	40.0	17.2	40.1	16.8	15.3	1.5	17.2	15.7	3.1	9.0	10.0	29.5	1.9	288.0	199.3	88.7	44.0	21.5	BB		22.4	1.5	2.48	2.07	4.35
01.août	25	F	M1x	25	07:34.3	FRA	Fil	Fil	Al W	C2	1	159.0		22.1	35.8	58.7	43.7	13.7	36.6	15.0	13.7	0.6	18.5	17.9	4.1	9.0	11.0	30.0	3.8	288.0	199.0	89.0	46.0	21.5	S2		23.0	1.3	2.48	2.05	4.35
	26			26	07:39.1	VEN	No rack listed																																		4.36
06.août	27	F	M1x	27	07:40.6	GEO	Win	Win	Al W	C2	1	160.0		20.0	36.0	56.0	48.0	16.0	36.0	17.0	15.6	4.4	19.5	15.1	0.0	11.5	13.5	30.5	3.8	288.0	199.5	88.5	46.0	21.5	S2	V	21.0	1.4	2.47	2.07	4.34
Average for class			M1x									159.6		15.1	37.5	60.1	43.3	22.9	45.4	16.7	15.7	1.5	17.6	16.1	2.2	10.1	13.2	30.4	5.8	288.3	199.6	88.6	45.2	21.6			21.97	1.01	2.48	2.07	4.48
Standard deviation			M1x									1.4		5.0	4.0	4.1	2.1	5.3	5.5	1.2	1.0	1.0	1.8	1.3	1.5	0.7	1.5	1.4	2.4	1.0	1.0	0.6	1.2	0.2			1.22	0.73	0.02	0.02	0.11
Standard deviation			M1x									0.8%		32.7%	10.7%	6.7%	4.9%	-0.2	-0.3	7.1%	6.6%	69.7%	10.4%	8.3%	68.5%	7.2%	11.3%	4.6%	41.2%	0.4%	0.5%	0.7%	2.7%	0.7%			5.5%	72.5%	0.8%	1.1%	2.5%
06.août		F	W1x	1	07:58.00	GER	Fil	Fil	Al W(bow)	C2	1	160.8		18.5	41.5	60.5	44.5	23.0	42.0	14.3	13.4	0.0	18.2	18.2	4.9	9.0	8.5	28.5	-1.0	286.0	197.0	89.0	46.0	21.5	S2	V	21.2	0.9	2.43	2.02	4.18
06.août		F	W1x	2	07:59.56	IRE	Fil	Fil	CF 2	C2	1	157.0		14.5	37.5	60.5	42.5	12.7	23.2	16.7	15.3	-1.0	18.0	19.0	5.5	11.0	12.5	30.0	2.9	286.5	199.0	86.5	46.0	21.5	S2		20.0	1.3	2.51	2.11	4.17
06.août		F	W1x	3	08:02.62	LAT	Emp	Emp	Al 3	C2	1	159.0		10.8	39.0	60.5	44.2	28.2	49.7	17.0	16.2	1.7	16.2	14.5	1.3	10.5	14.0	28.5	7.0	289.0	201.8	87.2	46.0	21.5	F2S	V	19.4	0.8	2.51	2.13	4.14
02.août	F84	F	W1x	4	08:05.29	ITA	Fil	Fil	CF W(bow)	Cro	1	159.5		12.0	31.2	52.0	42.5	19.2	40.0	14.5	14.5	0.5	15.0	14.5	3.5	9.5	12.0	24.5	5.8	287.4	198.5	88.9	43.5	22.0	Sli		22.3	0.0	2.46	2.06	4.12
02.août		F	W1x	5	08:10.75	DEN	Fil	Fil	Al W	C2	1	160.0		15.0	38.2	60.0	41.0	20.8	38.7	16.4	15.2	-0.5	15.5	16.0	3.3	10.0	11.0	29.0	2.0									1.2			4.08
02.août		F	W1x	6	08:17.94	CZE	Fil	Fil	Al 3	C2	1	160.6		12.9	35.0	57.0	41.2	22.1	44.1	15.3	16.6	-0.2	13.4	13.6	0.7	8.9	11.2	29.4	4.5	287.0	199.0	88.0	46.0	23.0	F2S	V	19.4	-1.3	2.45	2.07	4.02
06.août		F	W1x	7	08:10.5	JPN	Fil	Fil	Al W1	C2	1	160.5		17.4	37.2	61.0	41.4	19.8	43.6	14.0	13.1	1.0	17.5	16.5	3.3	9.5	10.5	30.0	1.9	288.0	198.0	90.0	46.0	21.5	S2		23.5	0.9	2.44	2.01	4.08
		F	W1x	8	08:11.7	SUI	did not measure																																		4.07
31.juil		F	W1x	9	08:13.8	BUL	Emp	Emp	Al 3	C2	1	159.0		16.5	34.0	55.0	44.0	20.9	42.1	13.8	12.6	0.8	14.2	13.4	0.4	10.0	12.0	28.5	4.1	287.0	198.5	88.5	44.0	21.5	BB		22.0	1.2	2.48	2.07	4.05
06.août		F	W1x	10	08:18.5	CHI	Fil	Fil	Al W1	C2	1	159.0		14.7	38.0	61.1	41.7	23.3	46.4	17.2	16.2	1.7	15.6	13.9	0.8	9.0	11.0	29.5	3.9	288.0	199.5	88.5	44.0	21.5	BB		22.0	1.0	2.48	2.08	4.01
03.août		F	W1x	11	08:22.2	BEL	Emp	Emp	CF 2	C2	1	160.0		17.7	32.5	52.5	42.0	14.8	34.8	15.0	14.1	0.1	15.1	15.0	3.4	10.5	12.0	26.0	3.3	286.0	197.5	88.5	46.0	21.5	S2	V	21.0	0.9	2.44	2.04	3.98
06.août		F	W1x	12	08:24.7	SLO	Fil	Fil	CF W(bow)	Cro	1	159.2		20.3	32.5	56.0	43.5	12.2	35.7	16.4	15.2	1.4	18.0	16.6	1.9	9.5	11.5	32.0	3.6	287.5	198.5	89.0	44.0	22.0	Sli		22.8	1.2	2.47	2.05	3.96
03.août		P	W1x	13	08:18.5	GRE	Fil	Fil	CF 2	C2	1	157.6		14.0	33.0	55.0	45.0	19.0	41.0	15.2	14.2	0.0	12.7	12.7	-0.2	9.0	12.0	27.5	6.3	284.5	197.1	87.4	44.0	21.5	BB		21.2	1.0	2.48	2.08	4.01
02.août		F	W1x	14	08:19.4	CRO	Sch	Sch	Al W	Cro	1	158.2		15.2	34.0	57.3	42.1	18.8	42.1	14.8	15.3	1.4	17.1	15.7	1.5	12.5	14.8	31.8	4.1	289.0	200.0	89.0	44.0	22.0	BB		23.8	-0.5	2.50	2.07	4.00
02.août		F	W1x	15	08:24.7	USA	Fil	Fil	Al W(Bow)	Cro	1	160.0		12.6	26.7	46.5	40.6	14.1	33.9	16.0	14.5	1.2	15.9	14.7	1.9	10.5	12.0	29.5	2.9	286.5	197.5	89.0	46.0	21.5	S2	V	22.0	1.5	2.44	2.03	3.96
06.août		F	W1x	16	08:31.4	TUN	Win	Win	Al W1	C2	1	159.5		16.0	32.0	53.0	43.2	19.8	44.1	15.7	15.4	3.9	20.5	16.6	2.9	10.5	14.0	30.0	7.6	288.0	200.0	88.0	46.0	21.5	F2S	V	20.5	0.3	2.48	2.08	3.91

		1 General Information					2 Manufacturer's Information				3 Span and Arc position								4 Relative Height Data						5 Splay				6 Oar data							7 Gearing		8 Velocities
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
06.août		F	W1x	17	08:35.7	EST	Fil	Fil	Al 3	C2	1	158.8		14.5	28.0	51.0	42.5	13.5	36.5	14.9	13.4	0.0	13.2	13.2	0.2	10.5	14.0	29.0	6.9	285.0	198.0	87.0	46.0	21.5	S2	V	19.2	1.5	2.47	2.08	
01.août		F	W1x	18	08:38.9	ZIM	Win	Win	Al W1	C2	1	158.3		8.6	30.1	50.5	44.8	21.5	41.9	15.0	13.9	2.8	18.9	16.1	3.4	11.0	14.0	27.0	6.4	285.5	201.5	84.0	46.0	21.5	F2S	V	13.7	1.1	2.52	2.21	3.85
06.août		F	W1x	19	08:48.6	VEN	Win	Win	Al W1	C2	1	160.1		14.5	40.0	63.0	42.9	25.5	48.5	14.4	16.5	3.8	21.5	17.7	3.4	11.0	14.5	31.5	6.4	288.0	201.0	87.0	46.0	21.5	S2		17.9	-2.1	2.49	2.12	3.78
Average for class			W1x									159.3		14.8	34.5	56.2	42.8	19.4	40.5	15.4	14.8	1.0	16.5	15.4	2.3	10.1	12.3	29.0	4.4	286.9	199.0	88.0	45.3	21.7			20.7	0.6	2.5	2.1	4.0
Standard deviation			W1x									1.0		2.8	4.1	4.6	1.3	4.5	6.2	1.0	1.2	1.4	2.5	1.8	1.6	0.9	1.7	1.9	2.2	1.4	1.5	1.4	1.0	0.4			2.4	1.0	0.0	0.0	0.1
% standard deviation			W1x									0.7%		19.1%	12.0%	8.2%	3.2%	-0.1	-0.1	6.8%	8.2%	134.0%	14.9%	11.6%	70.0%	9.3%	13.6%	6.7%	51.3%	0.5%	0.7%	1.6%	2.3%	1.8%			11.7%	163.3%	0.01	0.02	0.03
Differences, Men - Women												0.4		0.4	3.1	3.9	0.5	2.7	3.5	1.3	0.9	0.5	1.1	0.7	-0.1	0.0	0.8	1.4	1.5	1.3	0.6	0.7	-0.1	-0.1			1.3	0.4	0.01	-0.01	0.46
												0%		2%	8%	6%	1%	12%	8%	8%	6%	31%	6%	4%	-5%	0%	6%	5%	25%	0%	0%	1%	0%	-1%			6%	40%	0%	0%	10%

1x

Name	Boat Maker	Rigger Maker		Name	Rigger type		Name	Blade Maker		Name	Blade Shape
Emp	6	6		Al W1	9		C2	32		BB	#REF!
Fil	26	26		Al W	10		Cro	6		S2	#REF!
Win	6	6		CF W	1		Emp	1		F2S	5
Syk	0	0		CF W1	0		Dre	-		Apex	0
Sch	1	1		CF 2	7		Bra	-		ApexR	0
Hud	1	1		Al 3	7		Bra/C2	-		Sli	3
Swi	1	1		Al 2	3					Cle	0
CD	0	0		Al W(Bow	2					DSn	0
Ves	0	0		CF W(Bow	2					Sm	1
										Bra/F2S	0
missing	5	5		missing	5		Missing	7		Missing	8
Total	46	46		Total	46		Total	46		Total	#REF!
Check	46	46		Check	46		Check	46		Check	46

							1 General Information				2 Manufacturer's Information			3 Span and Arc position									4 Relative Height Data						5 Splay				6 Oar data							7 Gearing			
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm)/Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
01.août	TSS 221	F	M2x			ARG	Fil	Fil	Al 3	Cro	1	159.0		17.2	31.1	55.0	40.8	13.9	37.8	17.6	16.6	7.1	24.0	16.9	3.6	10.0	13.0	30.5	5.6	288.5	200.5	88.0	44.0	21.5	Sli		21.0	1.0	2.50	2.10
01.août	TSS 221	F	M2x			ARG	Fil	Fil	Al 3	Cro	2	159.0		12.7	39.0	63.5	41.3	26.3	50.8	18.4	17.9	8.3	25.9	17.6	3.6	10.5	13.5	31.0	5.6	288.0	200.5	87.5	44.0	21.5	Sli		20.0	0.5	2.50	2.11
01.août	TSS 221	F	M2x			ARG	Fil	Fil	Al 3	Cro	2a	159.0																		287.5	199.0	88.5	44.0	21.5	Sli		22.0		2.48	2.07
01.août	TSS 221	F	M2x			ARG	Fil	Fil	Al 3	Cro	Average	159.0		15.0	35.1	59.3	41.1	20.1	44.3	18.0	17.3	7.7	25.0	17.3	3.6	10.3	13.3	30.8	5.6	288.0	200.0	88.0	44.0	21.5	Sli		20.5	0.8	2.50	2.11
01.août		F	M2x			AZE	Emp	Emp	Al W1	Emp	1	159.8		13.0	34.8	58.0	38.5	21.8	45.0	15.6	14.4	6.6	20.0	13.4	1.2	11.1	13.1	29.4	3.9	287.0	199.0	88.0	43.0	21.5	BB		20.2	1.2	2.47	2.09
01.août		F	M2x			AZE	Emp	Emp	Al W1	Emp	2	159.8		13.5	34.0	57.0	40.5	20.5	43.5	16.2	14.4	6.6	20.4	13.8	1.1	11.5	13.7	29.3	4.3	288.0	199.5	88.5	43.0	21.5	BB		21.2	1.8	2.47	2.08
01.août		F	M2x			AZE	Emp	Emp	Al W1	Emp	Average	159.8		13.3	34.4	57.5	39.5	21.2	44.3	15.9	14.4	6.6	20.2	13.6	1.2	11.3	13.4	29.4	4.1	287.5	199.3	88.3	43.0	21.5	BB		20.7	1.5	2.47	2.09
06.août		F	M2x			BEL	Fil	Fil	Al W1	Cro	1	159.0		18.2	34.5	58.0	42.0	16.3	39.8	18.2	17.7	7.0	24.0	17.0	3.5	10.0	16.0	30.5	11.3	289.0	201.0	88.0	44.0	22.0	Sli		21.0	0.5	2.50	2.11
06.août		F	M2x			BEL	Fil	Fil	Al W1	Cro	2	159.0		20.0	36.0	58.0	42.0	16.0	38.0	18.2	17.5	7.0	23.0	16.0	2.4	11.0	16.0	30.5	9.4	289.0	201.0	88.0	44.0	22.0	Sli		21.0	0.7	2.50	2.11
06.août		F	M2x			BEL	Fil	Fil	Al W1	Cro	Average	159.0		19.1	35.3	58.0	42.0	16.2	38.9	18.2	17.6	7.0	23.5	16.5	2.9	10.5	16.0	30.5	10.3	289.0	201.0	88.0	44.0	22.0	Sli		21.0	0.6	2.50	2.11
01.août		F	M2x			BRA	Fil	Fil	Al 3	C2	1	159.2		17.3	38.0	58.5	42.0	15.7	41.2	17.7	17.0	5.8	22.7	16.9	2.8	11.0	13.0	31.5	3.5	289.0	199.5	89.5	45.5	21.5	S2		23.8	0.7	2.48	2.04
01.août		F	M2x			BRA	Fil	Fil	Al 3	C2	2	159.0		18.2	34.5	59.0	40.2	16.3	40.8	17.5	16.6	6.0	21.5	15.5	1.8	9.0	14.0	32.0	9.0	289.0	199.5	89.5	45.5	21.5	S2		24.0	0.7	2.48	2.04
01.août		F	M2x			BRA	Fil	Fil	Al 3	C2	Average	159.1		17.8	33.8	58.8	41.1	16.0	41.0	17.6	16.8	5.9	22.1	16.2	2.3	10.0	13.5	31.8	6.3	289.0	199.5	89.5	45.5	21.5	S2		23.9	0.8	2.48	2.04
31.juil		F	M2x			BUL	Emp	Emp	CF 2	C2	1	159.2		17.5	41.0	63.5	43.5	23.5	46.0	19.3	17.4	8.4	25.0	16.6	3.1	9.8	14.0	29.5	8.2	288.0	199.5	87.5	46.0	21.0	S2		19.8	1.9	2.48	2.09
31.juil		F	M2x			BUL	Emp	Emp	CF 2	C2	2	158.6		16.9	39.5	63.5	46.5	22.6	46.6	16.9	15.2	8.3	26.1	17.8	2.6	10.5	13.0	31.5	4.5	288.0	199.5	87.5	46.0	21.0	S2		20.4	1.7	2.49	2.09
31.juil		F	M2x			BUL	Emp	Emp	CF 2	C2	Average	158.9		17.2	40.3	63.5	45.0	23.1	46.3	18.1	16.3	8.4	25.6	17.2	2.8	10.2	13.5	30.5	6.4	288.0	199.5	87.5	46.0	21.0			20.1	1.8	2.49	2.09
06.août		F	M2x			CRO	Emp	Emp	CF 2	Cro	1	158.8		14.4	33.3	56.0	42.2	18.9	41.6	18.0	16.5	8.5	24.3	15.8	2.4	9.0	13.0	30.0	7.6	288.5	199.5	89.0	44.0	22.0	Sli		23.2	1.5	2.49	2.06
06.août		F	M2x			CRO	Emp	Emp	CF 2	Cro	2	158.8		17.3	36.5	59.0	44.0	19.2	41.7	17.3	16.0	8.2	25.2	17.0	2.7	10.0	12.5	31.0	4.6	288.5	199.5	89.0	44.0	22.0	Sli		23.2	1.3	2.49	2.06
06.août		F	M2x			CRO	Emp	Emp	CF 2	Cro	Average	158.8		15.9	34.9	57.5	43.1	19.1	41.7	17.7	16.3	8.4	24.8	16.4	2.6	9.5	12.8	30.5	5.8	288.5	199.5	89.0	44.0	22.0	Sli		23.2	1.4	2.49	2.06
06.août		F	M2x			CZE	Fil	Fil	Al W1(bow)	Cro	1	159.1		16.5	40.5	62.5	44.6	24.0	46.0	18.0	17.0	6.9	22.0	15.1	1.1	10.0	12.0	30.0	3.8	288.0	199.0	89.0	44.0	22.0	Sli		22.9	1.0	2.48	2.06
06.août		F	M2x			CZE	Fil	Fil	Al W1(bow)	Cro	2a	159.2		21.5	39.5	59.5	38.3	18.0	38.0	18.4	17.5	7.1	22.0	14.9	2.1	10.5	13.0	31.0	4.6	288.0	199.0	89.0	44.0	22.0	Sli		22.8	0.9	2.47	2.06
06.août		F	M2x			CZE	Fil	Fil	Al W1(bow)	Cro	Average	159.2		19.0	40.0	61.0	41.5	21.0	42.0	18.2	17.3	7.0	22.0	15.0	1.6	10.3	12.5	30.5	4.2	288.0	199.0	89.0	44.0	22.0	Sli		22.9	0.9	2.48	2.06
06.août		F	M2x			EST	Fil	Fil	Al W1	C2	1	160.5		14.5	32.0	54.5	43.1	17.5	40.0	20.0	19.0	6.4	22.5	16.1	2.5	9.5	13.5	30.0	7.6	288.0	198.8	89.2	45.5	21.5	S2		21.9	1.0	2.45	2.04
06.août		F	M2x			EST	Fil	Fil	Al W1	C2	2	160.5		13.0	33.0	57.0	42.8	20.0	44.0	20.4	18.8	6.4	22.0	15.6	1.8	9.5	12.5	30.5	5.6	288.0	198.8	89.2	45.5	21.5	S2		21.9	1.6	2.45	2.04
06.août		F	M2x			EST	Fil	Fil	Al W1	C2	Average	160.5		13.8	32.5	55.8	43.0	18.8	42.0	20.2	18.9	6.4	22.3	15.9	2.1	9.5	13.0	30.3	6.6	288.0	198.8	89.2	45.5	21.5	S2		21.9	1.3	2.45	2.04
01.août		F	M2x			FRA	Fil	Fil	Al W1	C2	1	160.0		20.0	41.0	64.0	42.8	21.0	44.0	17.4	17.0	5.8	23.5	17.7	1.8	9.8	12.9	30.8	5.3	289.0	201.0	88.0	45.5	21.5	S2		20.0	0.4	2.49	2.10
01.août		F	M2x			FRA	Fil	Fil	Al W1	C2	2	159.8		22.5	41.0	65.0	43.3	18.5	42.5	16.6	15.5	6.0	24.2	18.2	4.0	9.7	12.8	31.2	5.7	289.0	201.0	88.0	45.5	21.5	S2		20.2	1.1	2.49	2.10
01.août		F	M2x			FRA	Fil	Fil	Al W1	C2	Average	159.9		21.3	41.0	64.5	43.1	19.8	43.3	17.0	16.3	5.9	23.9	18.0	2.9	9.8	12.9	31.0	5.9	288.5	199.9	88.6	45.5	21.5	S2		20.1	0.8	2.49	2.10
01.août		P	M2x			GBR	Emp	Emp	Al W1	C2	1	160.0		12.3	35.6	61.5	40.5	23.3	49.2	18.9	17.9	2.5	21.2	18.7	4.6	10.0	13.0	32.5	5.3	289.0	200.0	89.0	45.0	21.5	S2		22.0	1.0	2.48	2.06
01.août		P	M2x			GBR	Emp	Emp	Al W1	C2	2	158.2					40.0					3.0	18.6	15.6	3.8	9.3	13.0	32.5	5.7	288.5	201.0	87.5	45.0	21.5	S3		20.8	0.0	2.52	2.11
01.août		P	M2x			GBR	Emp	Emp	Al W1	C2	Average	159.1		12.3	35.6	61.5	40.3	23.3	49.2	18.9	17.9	2.8	19.9	17.2	3.2	9.7	13.0	32.5	5.5	289.0	200.0	89.0	45.0	21.5	S2		21.4	0.5	2.50	2.09
06.août		F	M2x			GEO	Win	Win	Al W1	C2	1	159.7		15.5	35.5	59.5	44.1	20.0	44.0	17.0	15.5	5.1	22.0	16.9	1.6	11.0	13.5	33.0	4.3	288.0	199.5	88.5	45.5	21.5	S2		21.3	1.5	2.47	2.07
06.août		F	M2x			GEO	Win	Win	Al W1	C2	2	160.2		17.0	35.5	58.0	43.9	18.5	41.0	16.5	15.5	4.8	21.5	16.7	3.3	11.0	14.0	30.0	5.2	288.0	199.5	88.5	45.5	21.5	S2		20.8	1.0	2.47	2.07
06.août		F	M2x			GEO	Win	Win	Al W1	C2	Average	160.0		16.3	35.5	58.8	44.0	19.3	42.5	16.8	15.5	5.0	21.8	16.8	2.5	11.0	13.8	31.5	4.8	288.0	199.5	88.5	45.5	21.5	S2		21.1	1.3	2.47	2.07
06.août		F	M2x			LTU	Fil	Fil	Al W1	Bra	1	159.0		17.8	39.0	63.0	39.8	21.2	45.2	19.5	17.4	7.0	24.4	17.4	4.2	10.0	16.0	31.0	11.1	291.0	203.0	88.0	45.5	21.0	BB		21.0	2.1	2.53	2.12
06.août		F	M2x			LTU	Fil	Fil	Al W1	Bra	2	159.0		14.5	39.0	64.0	38.8	24.5	49.5	19.7	17.8	7.0	25.5	18.5	4.7	12.0	16.0	33.0	6.9	291.0	203.0	88.0	45.5	21.0	BB		21.0	1.9	2.53	2.12
06.août		F	M2x			LTU	Fil	Fil	Al W1	Bra	Average	159.0		16.2	39.0	63.5	39.3	22.9	47.4	19.6	17.6	7.0	25.0	18.0	3.7	11.0	16.0	32.0	7.0	291.0	203.0	88.0	45.5	21.0	BB		21.0	2.0	2.53	2.12
02.août		F	M2x			MEX	Fil	Fil	Al W1(bow)	C2	1	158.0		19.9	35.2	57.6	43.3	15.3	37.7	16.9	15.5	5.0	21.1	16.1	3.8	9.0	12.0	29.5	7.5	289.0	200.0	89.0	45.0	21.0	S2		24.0	1.4	2.51	2.06
02.août		F	M2x			MEX	Fil	Fil	Al W1(bow)	C2	2	158.0		19.7	35.2	59.0	40.0	15.5	39.3	16.8	15.5	5.0	20.0	15.0	2.4	9.5	12.0	29.5	4.9	289.0	200.0	89.0	45.0	21.0	S2		24.0	1.3	2.51	2.06
02.août		F	M2x			MEX	Fil	Fil	Al W1(bow)	C2	Average	158.0		19.8	35.2	58.3	41.7	15.4	38.5	16.9	15.5	5.0	20.6	15.6	3.1	9.3	12.0	29.5	6.2	289.0	200.0	89.0	45.0	21.0	S2		24.0	1.4	2.51	2.06
06.août		F	M2x			NOR	Fil	Fil	Al 3	Cro	1	159.1		12.5	38.0	60.5	42.6	25.5	48.0	20.0	18.4	9.1	26.0	16.9	3.2	10.0	13.0	30.5	5.6	286.5	198.5	88.0	44.0	22.0	Sli		20.9	1.6	2.47	2.08
06.août		F	M2x			NOR	Fil	Fil	Al 3	Cro	2	159.0		11.8	37.0	59.0	43.5	25.2	47.2	18.5	16.8	9.3	26.0	16.7	3.1	9.5	12.5	30.5	6.0	286.5	198.5	88.0	44.0	22.0	Sli		21.0	1.7	2.47	2.08
06.août		F	M2x			NOR	Fil	Fil	Al 3	Cro	Average	159.1		12.2	37.5	59.8	43.1	25.4	47.6	19.3	17.6	9.2	26.0	16.8	3.1	9.8	12.8	30.5	5.8	286.5	198.5	88.0	44.0	22.0	Sli		21.0	1.7	2.47	2.08

1 General Information · **2 Manufacturer's Information** · **3 Span and Arc position** · **4 Relative Height Data** · **5 Splay** · **6 Oar data** · **7 Gearing**

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
01.août		F	M2x			RSA	Fil	Fil	Al W1	C2	1	157.7		16.0	37.5	62.0	40.5	21.5	46.0	17.6	16.8	5.5	20.0	14.5	1.5	9.2	12.6	30.0	6.5	287.0	199.5	87.5	45.5	21.5	S2		21.3	0.8	2.50	2.09
01.août		F	M2x			RSA	Fil	Fil	Al W1	C2	2	158.0		21.0	33.0	58.0	43.3	12.0	37.0	17.6	16.6	6.0	20.1	14.1	0.5	10.2	13.1	29.8	5.6	287.0	199.5	87.5	45.5	21.5	S2		21.0	1.0	2.50	2.09
01.août		F	M2x			RSA	Fil	Fil	Al W1	C2	Average	157.9		18.5	35.3	60.0	41.9	16.8	41.5	17.6	16.7	5.8	20.1	14.3	1.0	9.7	12.9	29.9	6.0	287.0	199.5	87.5	45.5	21.5	S2		21.2	0.9	2.50	2.09
06.août		F	M2x			SLO	Fil	Fil	Al W1	C2	1	159.2		22.0	37.2	60.0	41.6	15.2	38.0	18.7	18.4	5.8	23.0	17.2	1.5	9.0	13.0	30.0	6.0	288.0	199.0	89.0	45.5	21.5	S2		22.8	0.3	2.47	2.05
06.août		F	M2x			SLO	Fil	Fil	Al W1	C2	2	159.2		21.0	38.0	61.0	38.6	17.0	40.0	18.6	17.7	6.0	23.0	17.0	4.3	10.5	13.0	30.5	4.7	288.0	199.0	89.0	45.5	21.5	S2		22.8	0.9	2.47	2.05
06.août		F	M2x			SLO	Fil	Fil	Al W1	C2	Average	159.2		21.5	37.6	60.5	40.1	16.1	39.0	18.7	18.1	5.9	23.0	17.1	2.9	9.8	13.0	30.3	5.3	288.0	199.0	89.0	45.5	21.5	S2		22.8	0.6	2.47	2.05
06.août		F	M2x			SUI	Fil	Fil	Al 3	C2	1	158.0		20.5	42.5	65.5	46.5	22.0	45.0	19.6	17.3	9.0	26.5	17.5	2.0	10.0	13.0	32.0	5.4	290.0	201.0	89.0	45.5	21.5	BB		24.0	2.3	2.52	2.07
06.août		F	M2x			SUI	Fil	Fil	Al 3	C2	2	158.0		17.3	43.0	65.0	44.2	25.7	47.7	19.1	17.3	9.0	25.5	16.5	2.6	9.0	13.0	30.0	7.6	290.0	201.0	89.0	45.5	21.5	BB		24.0	1.8	2.52	2.07
06.août		F	M2x			SUI	Fil	Fil	Al 3	C2	Average	158.0		18.9	42.8	65.3	45.4	23.9	46.4	19.4	17.3	9.0	26.0	17.0	2.3	9.5	13.0	31.0	6.5	290.0	201.0	89.0	45.5	21.5	BB		24.0	2.1	2.52	2.07
06.août		F	M2x			UKR	Fil	Fil	Al W1	C2	1	160.0		17.5	32.0	56.0	42.8	14.5	38.5	17.3	15.8	4.5	23.5	19.0	4.8	9.0	12.5	31.0	6.4	288.0	199.5	88.5	45.5	21.5	S2		21.0	1.5	2.47	2.07
06.août		F	M2x			UKR	Fil	Fil	Al W1	C2	2	160.0		18.5	34.0	58.0	43.3	15.5	39.5	17.6	16.0	4.9	21.5	16.6	2.9	11.5	12.5	31.0	6.5	288.0	199.5	88.5	45.5	21.5	S2		21.0	1.6	2.47	2.07
06.août		F	M2x			UKR	Fil	Fil	Al W1	C2	Average	160.0		18.0	33.0	57.0	43.1	15.0	39.0	17.5	15.9	4.7	22.5	17.8	3.8	10.3	12.5	31.3	6.4	288.0	199.5	88.5	45.5	21.5	S2		21.0	1.6	2.47	2.07
06.août		F	M2x			ZIM	Fil	Fil	Al 3	C2	1	159.2		15.8	38.0	60.5	41.9	22.2	44.7	18.4	17.2	7.8	24.0	16.2	2.6	10.0	11.0	30.5	1.9	289.0	200.4	88.6	46.0	21.5	S2		22.0	1.2	2.49	2.07
06.août		F	M2x			ZIM	Fil	Fil	Al 3	C2	2	158.9		12.0	38.0	61.0	42.6	26.0	49.0	17.6	17.2	7.7	24.0	16.3	2.5	10.0	12.0	30.5	3.8	289.0	200.4	88.6	46.0	21.5	S2		22.3	0.4	2.50	2.07
06.août		F	M2x			ZIM	Fil	Fil	Al 3	C2	Average	159.1		13.9	38.0	60.8	42.3	24.1	46.9	18.0	17.2	7.8	24.0	16.3	2.6	10.0	11.5	30.5	2.8	289.0	200.4	88.6	46.0	21.5	S2		22.2	0.8	2.49	2.07
Average for class			M2x									159.1		16.9	36.7	60.0	42.1	19.8	43.1	18.1	16.8	6.6	23.0	16.5	2.7	10.1	13.2	30.7	6.0	288.4	199.9	88.5	45.0	21.5			21.78	1.18	2.49	2.08
Standard deviation			M2x									0.7		3.0	3.0	2.8	1.9	3.7	3.7	1.1	1.1	1.6	2.0	1.3	1.0	0.7	1.1	0.9	1.8	1.0	1.0	0.6	0.8	0.3			1.29	0.52	0.02	0.02
% standard deviation			M2x									0.4%		17.7%	8.2%	4.7%	4.5%	18.6%	8.6%	6.2%	6.6%	24.3%	8.8%	7.6%	36.3%	7.1%	8.5%	3.0%	30.5%	0.3%	0.5%	0.7%	1.9%	1.4%			5.9%	44%	0.01	0.01
01.août		F	W2x			BEL	Emp	Emp	CF 2	Cro	1	157.8		17.4	42.0	56.4	43.0	24.6	39.0	17.2	16.1	8.0	25.0	17.0	3.0	10.0	14.0	30.9	7.4	287.4	198.9	88.5	43.0	22.0	Sli		23.2	1.1	2.50	2.08
01.août		F	W2x			BEL	Emp	Emp	CF 2	Cro	2	159.0		19.0	34.0	56.8	43.7	15.0	37.8	17.0	15.5	8.1	25.0	16.9	2.7	10.0	14.0	30.9	7.4	287.4	198.9	88.5	43.0	22.0	Sli		22.0	1.5	2.48	2.08
01.août		F	W2x			BEL	Emp	Emp	CF 2	Cro	Average	158.4		18.2	38.0	56.6	43.4	19.8	38.4	17.1	15.8	8.1	25.0	17.0	2.8	10.0	14.0	30.9	7.4	287.4	198.9	88.5	43.0	22.0	Sli		22.6	1.3	2.49	2.08
06.août		F	W2x			BLR	Emp	Emp	Al 3	C2	1	159.2		17.0	33.5	55.0	39.0	16.5	38.0	20.0	18.1	9.0	23.0	14.0	1.7	9.0	13.0	29.5	7.8	288.0	199.0	89.0	43.5	21.5	BB		22.8	1.9	2.47	2.06
06.août		F	W2x			BLR	Emp	Emp	Al 3	C2	2	159.2		25.5	31.5	56.5	36.6	6.0	31.0	18.0	16.5	7.9	23.5	15.6	3.1	10.5	13.0	31.5	4.5	288.0	199.0	89.0	43.5	21.5	BB		22.8	1.5	2.47	2.06
06.août		F	W2x			BLR	Emp	Emp	Al 3	C2	Average	159.2		21.3	32.5	55.8	37.8	11.3	34.5	19.0	17.3	8.5	23.3	14.8	2.4	9.8	13.0	30.5	6.2	288.0	199.0	89.0	43.5	21.5	BB		22.8	1.7	2.47	2.06
01.août		F	W2x			BRA	Fil	Fil	Al 3	C2	1	159.3		18.5	32.0	54.0	44.0	13.5	35.5	14.3	12.9	7.9	20.4	12.5	-0.9	10.0	16.0	29.0	5.2	286.5	197.5	89.0	45.5	21.5	S2		22.7	1.4	2.45	2.03
01.août		F	W2x			BRA	Fil	Fil	Al 3	C2	2	158.1		19.5	31.0	52.0	42.6	11.5	32.5	13.3	12.0	7.7	20.4	12.7	-0.8	11.0	13.5	30.0	4.8	286.5	197.5	89.0	45.5	21.5	S2		23.9	1.3	2.47	2.03
01.août		F	W2x			BRA	Fil	Fil	Al 3	C2	Average	158.7		19.0	31.5	53.0	43.3	12.5	34.0	13.8	12.5	7.8	20.4	12.6	-0.8	10.5	14.8	29.5	5.0	286.5	197.5	89.0	45.5	21.5	S2		23.3	1.4	2.46	2.03
01.août		F	W2x			CAN	Hud	Hud	Al W1	Cro	1	160.0		19.0	35.0	56.0	41.4	16.0	37.0	17.2	16.7	2.5	19.0	16.5	3.3	11.0	15.0	30.0	7.6	285.0	197.0	88.0	45.5	21.5	Sli		20.0	0.5	2.44	2.05
01.août		F	W2x			CAN	Hud	Hud	Al W1	Cro	2	160.0		19.0	35.0	56.5	40.4	16.0	37.5	16.6	15.5	2.5	19.5	17.0	3.3	12.1	16.0	29.4	7.6	285.0	197.5	87.5	45.5	21.5	Sli		19.0	1.1	2.44	2.07
01.août		F	W2x			CAN	Hud	Hud	Al W1	Cro	Average	160.0		19.0	35.0	56.3	40.9	16.0	37.3	16.9	16.1	2.5	19.3	16.8	3.8	11.6	15.5	29.7	7.6	285.0	197.3	87.8	45.5	21.5	Sli		19.5	0.8	2.44	2.06
02.août		F	W2x			ESP	Fil	Fil	CF 2	C2	1	159.2		19.5	29.5	52.8	36.0	10.0	33.3	15.8	15.3	7.5	23.0	15.5	4.7	11.5	13.5	27.5	4.2	288.0	199.8	88.2	45.5	21.5	BB		21.2	0.5	2.48	2.08
02.août		F	W2x			ESP	Fil	Fil	CF 2	C2	2	159.4		17.5	31.0	52.0	42.5	13.5	34.5	16.4	15.1	7.6	24.9	17.3	3.8	10.0	13.5	27.0	6.8	289.0	200.8	88.2	45.5	21.5	BB		21.0	1.3	2.49	2.09
02.août		F	W2x			ESP	Fil	Fil	CF 2	C2	Average	159.3		18.5	30.3	52.4	39.3	11.8	33.9	16.1	15.2	7.6	24.0	16.4	4.3	10.8	13.5	27.3	5.5	288.0	199.8	88.2	45.5	21.5	BB		21.1	0.9	2.49	2.08
02.août		F	W2x			FRA	Fil	Fil	Al W1	C2	1	159.0		17.8	28.5	50.0	42.9	10.7	32.2	18.0	17.0	6.5	22.8	16.3	3.8	11.0	13.5	27.5	5.2	289.5	200.5	89.0	46.0	21.0	S2		23.0	1.0	2.50	2.06
02.août		F	W2x			FRA	Fil	Fil	Al W1	C2	2	159.0		19.1	32.5	52.5	43.2	13.4	33.4	18.0	17.0	6.5	23.5	17.0	4.7	12.0	14.0	27.0	4.2	289.0	200.0	89.0	46.0	21.0	S2		23.0	1.0	2.49	2.06
02.août		F	W2x			FRA	Fil	Fil	Al W1	C2	Average	159.0		18.5	30.5	51.3	43.1	12.1	32.8	18.0	17.0	6.5	23.2	16.7	4.3	11.5	13.8	27.3	4.7	289.3	200.3	89.0	46.0	21.0	S2		23.0	1.0	2.49	2.06
06.août		F	W2x			LAT	Fil	Fil	Al 3	C2	1	158.1		15.0	33.0	55.0	40.6	18.0	40.0	17.0	16.4	8.7	23.0	14.3	1.7	10.5	13.0	29.0	4.9	289.0	203.3	85.7	45.5	21.0	S2	V	17.3	0.6	2.55	2.19
06.août		F	W2x			LAT	Fil	Fil	Al 3	C2	2	158.4		18.8	32.5	54.5	41.4	13.7	35.7	17.9	16.5	8.4	21.4	13.0	0.2	10.5	13.0	29.0	5.9	289.0	203.3	85.7	45.5	21.0	S2	V	17.0	1.4	2.54	2.19
06.août		F	W2x			LAT	Fil	Fil	Al 3	C2	Average	158.3		16.9	32.8	54.8	41.0	15.9	37.9	17.5	16.5	8.6	22.2	13.7	1.0	10.5	13.3	29.0	5.4	289.0	203.3	85.7	45.5	21.0	S2	V	17.2	1.0	2.54	2.19
06.août		F	W2x			LTU	Fil	Fil	CF 2	Bra	1	160.1		16.5	31.0	52.0	42.0	14.5	35.5	20.3	16.6	7.5	21.5	14.0	1.5	11.0	14.0	28.0	6.1	290.0	201.0	89.0	45.5	21.5	BB		21.9	3.7	2.49	2.07
06.août		F	W2x			LTU	Fil	Fil	CF 2	Bra	2	160.1		18.0	38.0	61.0	42.0	20.0	43.0	19.5	18.1	8.2	23.8	15.6	1.5	12.0	12.5	31.5	0.9	290.0	201.0	89.0	45.5	21.5	BB		21.9	1.4	2.49	2.07

Date	Boat ID	F/P	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm)/Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
06.août		F	W2x			LTU	Fil	Fil	CF 2	Bra	Average	160.1		17.3	34.5	56.5	42.0	17.3	39.3	19.9	17.4	7.9	22.7	14.8	1.5	11.5	13.3	29.8	3.4	290.0	201.0	89.0	45.5	21.5	BB		21.9	2.6	2.49	2.07
01.août		F	W2x			NED	Fil	Fil	Al W1		1	160.0		22.0	31.2	53.0	42.5	9.2	31.0	18.6	16.7	4.8	21.1	16.3	2.9	9.2	12.1	29.8	5.6	289.0	200.0	89.0	45.5	21.5	S2		22.0	1.9	2.48	2.06
01.août		F	W2x			NED	Fil	Fil	Al W1	C2	2	160.5		23.5	34.5	56.5	44.6	11.0	33.0	17.9	17.3	4.7	19.8	15.1	1.3	9.8	12.4	29.6	5.0	289.0	200.0	89.0	45.5	21.5	S2		21.5	0.6	2.47	2.06
01.août		F	W2x			NED	Fil	Fil	Al W1	C2	Average	160.3		22.8	32.9	54.8	43.6	10.1	32.0	18.3	17.0	4.8	20.5	15.7	2.1	9.5	12.3	29.7	5.3	289.0	200.0	89.0	45.5	21.5	S2		21.8	1.3	2.47	2.06
06.août		F	W2x			NOR	Win	Win	Al W1	Cro	1	159.0		13.7	33.5	54.0	40.7	19.8	40.3	15.8	14.9	6.0	21.5	15.5	2.9	11.5	13.5	29.0	4.0	286.0	198.0	88.0	44.0	22.0	Sli		21.0	0.9	2.47	2.07
06.août		F	W2x			NOR	Win	Win	Al W1	Cro	2	159.0		15.0	33.5	52.5	44.0	18.5	37.5	16.2	15.4	5.9	22.0	16.1	2.9	12.0	13.5	28.5	3.0	286.0	198.0	88.0	44.0	22.0	Sli		21.0	0.8	2.47	2.07
06.août		F	W2x			NOR	Win	Win	Al W1	Cro	Average	159.0		14.4	33.5	53.3	42.4	19.2	38.9	16.0	15.2	6.0	21.8	15.8	2.9	11.8	13.5	28.8	3.5	286.0	198.0	88.0	44.0	22.0	Sli		21.0	0.9	2.47	2.07
02.août	20350	P	W2x			PAK	Win	Win	Al W1		1	160.0		12.5	33.0	52.5	40.5	20.5	40.0	17.5	16.2	5.5	21.1	15.6	3.9	12.0	14.0	27.0	4.2											1.3
02.août	20350	P	W2x			PAK	Win	Win	Al W1		2	159.5		11.5	31.5	53.0	40.0	20.0	41.5	18.5	17.8	6.7	22.0	15.3	2.9	11.5	14.0	29.0	4.9											0.7
02.août	20350	P	W2x			PAK	Win	Win	Al W1		Average	159.8		12.0	32.3	52.8	40.3	20.3	40.8	18.0	17.0	6.1	21.6	15.5	3.2	11.8	14.0	28.0	3.9											1.0
02.août		F	W2x			POL	Emp	Emp	Al 3	C2	1	158.2		15.0	35.0	59.5	42.0	20.0	44.5	17.5	16.0	4.0	19.5	15.5	2.1	9.5	13.0	30.0	6.7	289.0	200.3	88.7	45.5	21.5	S2	V	23.2	1.5	2.51	2.07
02.août		F	W2x			POL	Emp	Emp	Al 3	C2	2	158.5		16.3	36.5	60.5	43.5	20.2	44.2	17.7	16.1	3.9	21.2	17.3	2.6	12.0	13.5	32.0	2.7	289.0	200.3	88.7	45.5	21.5	S2	V	22.9	1.6	2.50	2.07
02.août		F	W2x			POL	Emp	Emp	Al 3	C2	Average	158.4		15.7	35.8	60.0	42.8	20.1	44.4	17.6	16.1	4.0	20.4	16.4	2.4	10.8	13.3	31.0	4.7	289.0	200.3	88.7	45.5	21.5	S2	V	23.1	1.6	2.50	2.07
06.août		F	W2x			POL	Emp	Emp	Al 3	Cro	1	159.2		16.2	31.0	54.0	40.0	14.8	37.8	17.4	15.5	8.3	26.2	17.9	2.6	12.0	13.5	29.0	4.5	289.0	199.0	90.0	44.0	22.0	Sli		24.8	1.9	2.47	2.03
06.août		F	W2x			POL	Emp	Emp	Al 3	Cro	2	159.5		15.5	35.5	58.0	42.1	20.0	42.5	17.7	15.7	8.5	24.0	15.5	2.8	10.2	13.0	28.5	5.6	289.0	199.0	90.0	44.0	22.0	Sli		24.5	2.0	2.47	2.03
06.août		F	W2x			POL	Emp	Emp	Al 3	Cro	Average	159.4		15.9	33.3	56.0	41.1	17.4	40.2	17.6	15.6	8.4	25.1	16.7	2.7	11.1	13.3	28.8	5.1	289.0	199.0	90.0	44.0	22.0	Sli		24.7	2.0	2.47	2.03
02.août		F	W2x			ROU	Fil	Fil	CF 2	Cro	1	159.5		19.6	37.5	59.0	39.0	17.9	39.4	16.0	15.0	7.0	22.6	15.6	1.9	11.5	14.3	27.8	5.5	289.3	200.3	89.0	43.0	21.5	Sli		22.5	1.0	2.49	2.08
02.août		F	W2x			ROU	Fil	Fil	CF 2	Cro	2	159.5		15.0	34.3	55.0	38.7	19.3	40.0	15.6	14.4	6.3	22.5	16.2	5.3	11.5	13.6	26.2	4.6	289.3	200.3	89.0	43.0	21.5	Sli		22.5	1.2	2.49	2.08
02.août		F	W2x			ROU	Fil	Fil	CF 2	Cro	Average	159.5		17.3	35.9	57.0	38.9	18.6	39.7	15.8	14.7	6.7	22.6	15.9	3.9	11.5	14.0	27.0	4.8	289.3	200.3	89.0	43.0	21.5	Sli		22.5	1.1	2.49	2.08
06.août		F	W2x			RSA	Fil	Fil	Al 3	C2	1	158.0		20.5	34.5	57.0	40.3	14.0	36.5	16.0	15.0	5.2	19.5	14.3	3.6	9.0	13.0	29.0	4.9	287.3	200.0	87.3	46.0	21.5	S2		20.6	1.0	2.51	2.10
06.août		F	W2x			RSA	Fil	Fil	Al 3	C2	2	159.0		16.5	32.5	55.5	42.8	16.0	39.0	17.3	16.0	5.1	20.5	15.4	2.3	9.5	13.0	29.0	6.9	287.3	200.0	87.3	46.0	21.5	S2		19.6	1.3	2.49	2.10
06.août		F	W2x			RSA	Fil	Fil	Al 3	C2	Average	158.5		18.5	33.5	56.3	41.6	15.0	37.8	16.7	15.5	5.2	20.0	14.9	3.0	9.3	13.0	29.0	5.9	287.3	200.0	87.3	46.0	21.5	S2		20.1	1.2	2.50	2.10
06.août		F	W2x			SWE	Fil	Fil	CF 2	C2	1	159.5		11.5	31.0	53.0	40.5	19.5	41.5	17.8	16.4	7.6	25.0	17.4	4.9	11.0	15.0	29.0	7.9	287.0	199.0	88.0	45.5	21.5	S2	V	20.5	1.4	2.47	2.07
06.août		F	W2x			SWE	Fil	Fil	CF 2	C2	2	159.0		14.2	29.5	50.0	42.4	15.3	35.8	17.8	16.8	7.6	23.5	15.9	3.4	10.0	15.0	27.0	6.4	287.0	199.0	88.0	45.5	21.5	S2	V	21.0	1.0	2.48	2.07
06.août		F	W2x			SWE	Fil	Fil	CF 2	C2	Average	159.3		12.9	30.3	51.5	41.5	17.4	38.7	17.8	16.6	7.6	24.3	16.7	4.3	10.5	15.0	28.0	9.2	287.0	199.0	88.0	45.5	21.5	S2	V	20.8	1.2	2.47	2.07
02.août		F	W2x			USA	Fil	Fil	Al W1(bow)	Cro	1	158.5		19.8	28.0	48.5	41.8	8.2	28.7	16.4	15.3	5.0	21.3	16.3	3.9	10.0	12.0	28.0	4.1	287.1	197.9	89.2	44.0	21.5	Sli		23.9	1.1	2.47	2.04
02.août		F	W2x			USA	Fil	Fil	Al W1(bow)	Cro	2	158.5		18.4	30.0	51.5	41.6	11.6	33.1	16.3	15.8	5.1	22.3	17.2	4.4	10.5	13.0	29.0	4.9	287.1	197.9	89.2	44.0	21.5	Sli		23.9	0.5	2.47	2.04
02.août		F	W2x			USA	Fil	Fil	Al W1(bow)	Cro	Average	158.5		19.1	29.0	50.0	41.7	9.9	30.9	16.4	15.6	5.1	21.8	16.8	4.1	10.3	12.5	28.5	4.5	287.1	197.9	89.2	44.0	21.5	Sli		23.9	0.8	2.47	2.04
01.août		F	W2x			ZIM	Win	Win	Al W1	C2	1	159.5		14.0	37.5	59.0	42.1	23.5	45.0	16.0	15.2	7.0	20.3	13.3	1.3	13.1	14.4	26.8	2.8	288.0	202.0	86.0	46.5	21.0	F2s	V	16.5	0.8	2.51	2.16
01.août		F	W2x			ZIM	Win	Win	Al W1	C2	2	159.5		12.3	35.6	55.8	42.2	23.3	43.5	16.0	15.2	7.0	20.5	13.5	1.4	12.2	14.3	27.0	4.5	288.0	202.0	86.0	46.5	21.0	F2s	V	16.5	0.8	2.51	2.16
01.août		F	W2x			ZIM	Win	Win	Al W1	C2	Average	159.5		13.2	36.6	57.4	42.2	23.4	44.3	16.0	15.2	7.0	20.4	13.4	1.4	12.7	14.4	26.9	3.6	288.0	202.0	86.0	46.5	21.0	F2s	V	16.5	0.8	2.51	2.16
Average for class			W2x									159.2		17.2	33.2	54.7	41.5	16.0	37.5	17.1	15.9	6.5	22.1	15.6	2.7	10.8	13.7	28.9	5.3	288.0	199.6	88.3	44.9	21.5			21.5	1.2	2.48	2.08
Standard deviation			W2x									0.6		3.0	2.7	2.8	1.8	4.3	4.1	1.4	1.2	1.7	1.8	1.4	1.4	1.0	0.9	1.4	1.6	1.3	1.6	1.1	1.1	0.3			2.2	0.5	0.02	0.04
% standard deviation			W2x									0.4%		17.7%	8.3%	5.2%	4.4%	26.8%	10.8%	8.1%	7.6%	25.9%	8.2%	8.8%	51.6%	9.1%	6.5%	4.8%	29.7%	0.5%	0.8%	1.3%	2.4%	1.4%			10.2%	44.1%	0.01	0.02

1 General Information | **2 Manufacturer's Information** | **3 Span and Arc position** | **4 Relative Height Data** | **5 Splay** | **6 Oar data** | **7 Gearing** | **8 Velocity**

Date	Boat ID	F/P	Boat type/Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) start'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
				1	06:33.66	GER	did not measure																																			5.08
01.août		F	M2x	2	06:36.65	FRA	Fil	Fil	Al W1	C2	Average	159.9		21.3	41.0	64.5	43.1	19.8	43.3	17.0	16.3	5.9	23.9	18.0	2.9	9.8	12.9	31.0	5.9	288.5	199.9	88.6	45.5	21.5	S2		21.2	0.9	2.50	2.09	5.04
06.août		F	M2x	3	06:40.36	CZE	Fil	Fil	Al W1(bow)	Cro	Average	159.2		19.0	40.0	61.0	41.5	21.0	42.0	18.2	17.3	7.0	22.0	15.0	1.6	10.3	12.5	30.5	4.2	288.0	199.0	89.0	44.0	22.0	Sli		21.3	0.8	2.50	2.09	5.00
06.août		F	M2x	4	06:47.93	SUI	Fil	Fil	Al 3	C2	Average	158.0		18.9	42.8	65.3	45.4	23.9	46.4	19.4	17.3	9.0	26.0	17.0	2.3	9.5	13.0	31.0	6.5	290.0	201.0	89.0	45.5	21.5	BB		21.0	1.6	2.47	2.07	4.90
06.août		F	M2x	5	06:49.45	SLO	Fil	Fil	Al W1	C2	Average	159.2		21.5	37.6	60.5	40.1	16.1	39.0	18.7	18.1	5.9	23.0	17.1	2.9	9.8	13.0	30.3	5.3	288.0	199.0	89.0	45.5	21.5	S2		21.0	1.5	2.47	2.07	4.88
01.août		P	M2x	6	06:51.19	GBR	Emp	Emp	Al W1	C2	Average	159.1		12.3	35.6	61.5	40.3	23.3	49.2	18.9	17.9	2.8	19.9	17.2	3.2	9.7	13.0	32.5	5.5	289.0	200.0	89.0	45.0	21.5	S2		22.8	0.3	2.47	2.05	4.86
				7	06:42.9	HUN	did not measure																																		
				8	06:44.1	NED	did not measure																																		
01.août		F	M2x	9	06:46.8	BEL	Emp	Emp	CF 2	Cro	Average	158.4		18.2	38.0	56.6	43.4	19.8	38.4	17.1	15.8	8.1	25.0	17.0	2.8	10.0	14.0	30.9	7.4	287.4	198.9	88.5	43.0	22.0	Sli		24.0	1.3	2.51	2.06	4.92
01.août		F	M2x	10	06:47.1	LTU	Fil	Fil	Al W1	Bra	Average	159.0		16.2	39.0	63.5	39.3	22.9	47.4	19.6	17.6	7.0	25.0	18.0	3.7	11.0	16.0	32.0	7.0	291.0	203.0	88.0	45.5	21.0	BB		22.8	0.6	2.47	2.05	4.91
01.août		F	M2x	11	07:10.7	AZE	Emp	Emp	Al W1	Emp	Average	159.8		13.3	34.4	57.5	39.5	21.2	44.3	15.9	14.4	6.6	20.2	13.6	1.2	11.3	13.4	29.4	4.1	287.5	199.3	88.3	43.0	21.5	BB		24.0	1.4	2.51	2.06	4.64
06.août		F	M2x	12	06:48.6	POL	Emp	Emp	Al 3	Cro	Average	159.4		15.9	33.3	56.0	41.1	17.4	40.2	17.6	15.6	8.4	25.1	16.7	2.7	11.1	13.3	28.8	5.1	289.0	199.0	90.0	44.0	22.0	Sli		19.0	1.1	2.44	2.07	4.89
06.août		F	M2x	13	06:52.9	EST	Fil	Fil	Al W1	C2	Average	160.5		13.8	32.5	55.8	43.0	18.8	42.0	20.2	18.9	6.4	22.3	15.9	2.1	9.5	13.0	30.3	6.6	288.0	198.8	89.2	45.5	21.5	S2		21.0	1.0	2.50	2.09	4.84
06.août		F	M2x	14	06:47.0	NOR	Fil	Fil	Al 3	Cro	Average	159.1		12.2	37.5	59.8	43.1	25.4	47.6	19.3	17.6	9.2	26.0	16.8	3.1	9.8	12.8	30.5	5.8	286.5	198.5	88.0	44.0	22.0	Sli		24.0	1.8	2.52	2.07	4.91
06.août		F	M2x	15	06:47.7	UKR	Fil	Fil	Al W1	C2	Average	160.0		18.0	33.0	57.0	43.1	15.0	39.0	17.5	15.9	4.7	22.5	17.8	3.8	10.3	12.5	31.3	6.4	288.0	199.5	88.5	45.5	21.5	S2		21.0	1.6	2.47	2.07	4.91
06.août		F	M2x	16	06:47.9	CRO	Emp	Emp	CF 2	Cro	Average	158.8		15.9	34.9	57.5	43.1	19.1	41.7	17.7	16.3	8.4	24.8	16.4	2.6	9.5	12.8	30.5	5.8	288.5	199.5	89.0	44.0	22.0	Sli		21.0	1.7	2.47	2.08	4.90
02.août		F	M2x	17	06:50.9	MEX	Fil	Fil	Al W1(bow)	C2	Average	158.0		19.8	35.2	58.3	41.7	15.4	38.5	16.9	15.5	5.0	20.6	15.6	3.1	9.3	12.0	29.5	6.2	289.0	200.0	89.0	45.0	21.0	S2		24.0	2.3	2.52	2.07	4.87
31.juil		F	M2x	18	06:51.3	BUL	Emp	Emp	CF 2	C2	Average	158.9		17.2	40.3	63.5	45.0	23.1	46.3	18.1	16.3	8.4	25.6	17.2	2.8	10.2	13.5	30.5	6.4	288.0	199.5	87.5	46.0	21.0			21.0	1.7	2.47	2.08	4.86
				19	06:53.7	USA	did not measure																																		
01.août		F	M2x	20	06:52.5	BRA	Fil	Fil	Al 3	C2	Average	159.1		17.8	33.8	58.8	41.1	16.0	41.0	17.6	16.8	5.9	22.1	16.2	2.3	10.0	13.5	31.8	6.3	289.0	199.5	89.5	45.5	21.5	S2		20.9	1.6	2.47	2.08	4.85
01.août		F	M2x	21	06:52.9	RSA	Fil	Fil	Al W1	C2	Average	157.9		18.5	35.3	60.0	41.9	16.8	41.5	17.6	16.7	5.8	20.1	14.3	1.0	9.7	12.9	29.9	6.0	287.0	199.5	87.5	45.5	21.5	S2		24.0	2.1	2.52	2.07	4.84
06.août		F	M2x	22	06:56.0	ZIM	Fil	Fil	Al 3	C2	Average	159.1		13.9	38.0	60.8	42.3	24.1	46.9	18.0	17.2	7.8	24.0	16.3	2.6	10.0	11.5	30.5	2.8	289.0	200.4	88.6	46.0	21.5	S2		22.0	1.2	2.49	2.07	4.81
06.août		F	M2x	23	07:26.8	GEO	Win	Win	Al W1	C2	Average	160.0		16.3	35.5	58.8	44.0	19.3	42.5	16.8	15.5	5.0	21.8	16.5	2.5	11.0	13.8	31.5	4.8	288.0	199.5	88.5	45.5	21.5	S2		22.8	0.9	2.47	2.05	4.48
01.août TSS 221		F	M2x	not in a final		ARG	Fil	Fil	Al 3	Cro	Average	159.0		15.0	35.1	59.3	41.1	20.1	44.3	18.0	17.3	7.7	25.0	17.3	3.6	10.3	13.3	30.8	5.6	288.0	200.0	88.0	44.0	21.5	Sli		21.0	2.0	2.53	2.12	
06.août		F	M2x	not in a final		BEL	Fil	Fil	Al W1	Cro	Average	159.0		19.1	35.3	58.0	42.0	16.2	38.9	18.2	17.6	7.0	23.5	16.5	2.9	10.5	16.0	30.5	10.3	289.0	201.0	88.0	44.0	22.0	Sli		24.0	1.4	2.51	2.06	
Average for class			M2x									159.1		16.8	36.6	59.7	42.1	19.7	42.9	18.0	16.7	6.7	23.2	16.5	2.7	10.1	13.3	30.7	5.9	288.4	199.8	88.6	44.8	21.6			22.1	1.4	2.49	2.07	4.87
Standard deviation			M2x									0.7		2.7	2.8	2.8	1.7	3.2	3.4	1.1	1.1	1.6	2.0	1.1	0.7	0.6	1.1	0.9	1.5	1.0	1.0	0.6	0.9	0.3			1.5	0.5	0.02	0.02	0.13
% standard deviation			M2x									0%	##	16%	8%	5%	4%	16%	8%	6%	6%	24%	9%	7%	28%	6%	8%	3%	25%	0%	0%	1%	2%	2%			7%	37%	0.01	0.01	0.03
06.août		F	W2x	1	07:17.87	LTU	Fil	Fil	CF 2	Bra	Average	160.1		17.3	34.5	56.5	42.0	17.3	39.3	19.9	17.4	7.9	22.7	14.8	1.5	11.5	13.3	29.8	3.4	290.0	201.0	89.0	45.5	21.5	BB		21.9	2.6	2.49	2.09	4.57
				2	07:19.35	GER	missing sheet?																																		4.55
02.août		F	W2x	3	07:20.10	FRA	Fil	Fil	Al W1	C2	Average	159.0		18.5	30.5	51.3	43.1	12.1	32.8	18.0	17.0	6.5	23.2	16.7	4.3	11.5	13.8	27.3	4.7	289.3	200.3	89.0	46.0	21.0	S2		23.0	1.0	2.49	2.06	4.54
02.août		F	W2x	4	07:20.77	ESP	Fil	Fil	CF 2	C2	Average	159.3		18.5	30.3	52.4	39.3	11.8	33.9	16.1	15.2	7.6	24.0	16.4	4.3	10.8	13.5	27.3	5.5	288.0	199.8	88.2	45.5	21.5	BB		21.1	0.9	2.49	2.08	4.54
01.août		F	W2x	5	07:23.42	CAN	Hud	Hud	Al W1	Cro	Average	160.0		19.0	35.0	56.3	40.9	16.0	37.3	16.9	16.1	2.5	19.3	16.8	3.8	11.6	15.5	29.7	7.6	285.0	197.3	87.8	45.5	21.5	Sli		19.5	0.8	2.44	2.06	4.51
06.août		F	W2x	6	07:29.75	RSA	Fil	Fil	Al 3	C2	Average	158.5		18.5	33.5	56.3	41.6	15.0	37.8	16.7	15.5	5.2	20.0	14.9	3.0	9.3	13.0	29.0	5.9	287.3	200.0	87.3	46.0	21.5	S2		20.1	1.2	2.50	2.10	4.45
06.août		F	W2x	7	07:28.9	NED	Fil	Fil	Al W1	C2	Average	160.3		22.8	32.9	54.8	43.6	10.1	32.0	18.3	17.0	4.8	20.5	15.7	2.1	9.5	12.3	29.7	5.3	289.0	200.0	89.0	45.5	21.5	S2		21.8	1.3	2.47	2.06	4.46
06.août		F	W2x	8	07:30.6	NOR	Win	Win	Al W1	Cro	Average	159.0		14.4	33.5	53.3	42.4	19.2	38.9	16.0	15.2	6.0	21.8	15.8	2.9	11.8	13.5	28.8	3.5	286.0	198.0	88.0	44.0	22.0	Sli		21.0	0.9	2.47	2.07	4.44
06.août		F	W2x	9	07:33.0	USA	Fil	Fil	Al W1(bow)	Cro	Average	158.5		19.1	29.0	50.0	41.7	9.9	30.9	16.4	15.6	5.1	21.8	16.8	4.1	10.3	12.5	28.5	4.5	287.1	197.9	89.2	44.0	21.5	Sli		23.9	0.8	2.47	2.04	4.41
06.août		F	W2x	10	07:33.7	SWE	Fil	Fil	CF 2	C2	Average	159.3		12.9	30.3	51.5	41.5	17.4	38.7	17.8	16.6	7.6	24.3	16.7	4.3	10.5	15.0	28.0	9.2	287.0	199.0	88.0	45.5	21.5	S2	V	20.8	1.2	2.47	2.07	4.41
01.août		F	W2x	11	07:34.9	BRA	Fil	Fil	Al 3	C2	Average	158.7		19.0	31.5	53.0	43.3	12.5	34.0	13.8	12.5	7.8	20.4	12.6	-0.8	10.5	14.8	29.5	5.0	286.5	197.5	89.0	45.5	21.5	S2		23.3	1.4	2.46	2.03	4.40
02.août		F	W2x	12	07:37.7	ROU	Fil	Fil	CF 2	Cro	Average	159.5		17.3	35.9	57.0	38.9	18.6	39.7	15.8	14.7	6.7	22.6	15.9	3.9	11.5	14.0	27.0	4.8	289.3	200.3	89.0	43.0	21.5	Sli		22.5	1.1	2.49	2.08	4.37
06.août		F	W2x	13	07:27.6	BLR	Emp	Emp	Al 3	C2	Average	159.2		21.3	32.5	55.8	37.8	11.3	34.5	19.0	17.3	8.5	23.3	14.8	2.4	9.8	13.0	30.5	6.2	288.0	199.0	89.0	43.5	21.5	BB		22.8	1.7	2.47	2.06	4.47
02.août		F	W2x	14	07:31.5	POL	Emp	Emp	Al 3	C2	Average	158.4		15.7	35.8	60.0	42.8	20.1	44.4	17.6	16.1	4.0	20.4	16.4	2.4	10.8	13.3	31.0	4.7	289.0	200.3	88.7	45.5	21.5	S2	V	23.1	1.6	2.50	2.07	4.43
06.août		F	W2x	15	07:32.5	LAT	Fil	Fil	Al 3	C2	Average	158.3		16.9	32.8	54.8	41.0	15.9	37.9	17.5	16.5	8.6	22.2	13.7	1.0	10.5	13.3	29.0	5.4	289.0	203.3	85.7	45.5	21.0	S2	V	17.2	1.0	2.54	2.19	4.42
01.août		F	W2x	16	07:33.5	BEL	Emp	Emp	CF 2	Cro	Average	158.4		18.2	38.0	56.6	43.4	19.8	38.4	17.1	15.8	8.1	25.0	17.0	2.8	10.0	14.0	30.9	7.4	287.4	198.9	88.5	43.0	22.0	Sli		22.6	1.3	2.49	2.08	4.41
				17	07:33.8	GRE	did not measure																																		4.41
01.août		F	W2x	18	08:09.1	ZIM	Win	Win	Al W1	C2	Average	159.5		13.2	36.6	57.4	42.2	23.4	44.3	16.0	15.2	7.0	20.4	13.4	1.4	12.7	14.4	26.9	3.6	288.0	202.0	86.0	46.5	21.0	F2s	V	16.5	0.8	2.51	2.16	4.09
02.août 20350		P	W2x	19	08:19.5	PAK	Win	Win	Al W1		Average	159.8		12.0	32.3	52.8	40.3	20.3	40.8	18.0	17.0	6.1	21.6	15.5	3.2	11.8	14.0	28.0	3.9										1.0			4.00
Average for class			W2x									159.2		17.3	33.2	54.7	41.5	15.9	37.4	17.1	15.9	6.4	21.9	15.5	2.7	10.8	13.7	28.9	5.3	270.9	187.9	83.0	42.4	20.2			21.3	1.2	2.34	2.08	4.41
Standard deviation			W2x									0.6		2.9	2.5	2.6	1.7	4.1	3.9	1.4	1.2	1.7	1.7	1.3	1.4	0.9	0.9	1.3	1.6	69.8	48.4	21.4	11.0	5.2			2.1	0.4	0.60	0.04	0.14
% standard deviation			W2x									0%	##	17%	8%	5%	4%	26%	10%	8%	8%	26%	8%	8%	52%	9%	6%	5%	30%	26%	26%	26%	26%	26%			10%	37%	0.26	0.02	0.03
Differences, Men - Women												-0.1		-0.5	3.4	5.0	0.6	3.8	5.5	0.9	0.8	0.3	1.3	1.0	-0.1	-0.7	-0.4	1.8	0.6	17.5	11.8	5.6	2.5	1.4			0.8	0.2	0.15	-0.01	0.46
												0%		-2%	10%	9%	2%	34%	16%	5%	5%	4%	6%	7%	-3%	-7%	-3%	6%	9%	6%	6%	6%	6%	6%				9.9%			

2x

Name	Boat Maker	Rigger Maker	Name	Rigger type	Name	Blade Maker	Name	Blade Shape
Emp	9	9	Al W1	16	C2	22	BB	#REF!
Fil	24	24	Al W		Cro	12	S2	#REF!
Win	4	4	CF W		Emp	1	F2S	1
Syk			CF W1		Dre	-	Apex	
Sch			CF 2	8	Bra	2	ApexR	
Hud	1	1	Al 3	11	Bra/C2	-	Sli	12
Swi			Al 2				Cle	
CD			Al W(Bow)	3			DSn	
Ves			CF W(Bow)				Sm	
							Bra/F2S	
missing	6	6	missing	6	Missing	7	Missing	8
Total	44	44	Total	44	Total	44	Total	#REF!
Check	44	44	Check	44	Check	44	Check	44

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
31.juil		P	M4x	x		AUS	Syk	Syk	Al W1	Cro	1	158.0		19.1	40.4	62.3	40.7	21.3	43.2	18.8	17.7	6.7				9.5	12.0	31.0	4.6	290.0	201.5	88.5	43.0	22.0	Sli		23.00	1.10	2.53	2.11
31.juil		P	M4x	x		AUS	Syk	Syk	Al W1	Cro	2	161.0		13.0	44.0	64.0	42.7	31.0	51.0	20.0	18.6	6.5				11.5	12.5	32.0	1.8	289.7	201.2	88.5	43.0	22.0	Sli		20.00	1.40	2.47	2.10
31.juil		P	M4x	x		AUS	Syk	Syk	Al W1	Cro	3	157.0		14.0	34.0	54.4	41.7	20.0	40.4	19.3	18.6	7.9				10.0	13.0	31.0	5.5	289.7	201.2	88.5	43.0	22.0	Sli		24.00	0.70	2.54	2.10
31.juil		P	M4x	x		AUS	Syk	Syk	Al W1	Cro	4	158.0		10.5	34.0	56.0	41.7	23.5	45.5	18.4	16.9	7.7				12.5	12.5	31.0	0.0	290.0	201.2	88.5	43.0	22.0	Sli		23.00	1.50	2.52	2.10
31.juil		F	M4x			AUS	Syk	Syk	Al W1	Cro	Average	158.5		14.2	38.1	59.2	41.7	24.0	45.0	19.1	18.0	7.2				10.9	12.5	31.3	3.0	289.9	201.3	88.5	43.0	22.0	Sli		22.50	1.18	2.51	2.10
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	1	159.0		18.0	37.0	58.5	43.5	19.0	40.5	18.9	18.6	10.0	29.5	19.5	6.2	12.0	15.0	29.0	5.9	290.5	201.5	89.0	46.0	21.5	S2	V	23.00	0.30	2.51	2.08
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	2	159.0		18.0	37.0	60.0	42.5	19.0	42.0	19.4	18.6	10.0	29.0	19.0	5.1	11.0	15.0	31.0	7.4	290.9	201.9	89.0	46.0	21.5	S2	V	23.00	0.80	2.51	2.08
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	3	159.0		19.0	37.0	59.5	43.5	18.0	40.5	18.5	17.5	9.7	28.5	18.8	5.1	12.0	15.0	30.0	5.7	290.5	201.5	89.0	46.0	21.5	S2	V	23.00	1.00	2.51	2.08
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	4	159.0		20.5	35.5	58.0	42.9	15.0	37.5	17.8	16.5	9.9	27.4	17.5	4.4	12.0	15.0	29.0	5.9	290.0	201.0	89.0	46.0	21.5	S2	V	23.00	1.30	2.50	2.07
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	Average	159.0		18.9	36.6	59.0	43.1	17.8	40.1	18.7	17.8	9.9	28.6	18.7	5.2	11.8	15.0	29.8	6.2	290.5	201.5	89.0	46.0	21.5	S2	V	23.00	0.85	2.51	2.08
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	1																			290.2	201.2	89.0	46.0	21.5	S2	V		0.00		2.07
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	2																			290.3	201.3	89.0	46.0	21.5	S2	V		0.00		2.07
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	3																			289.9	200.9	89.0	46.0	21.5	S2			0.00		2.07
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	4																			290.0	201.0	89.0	46.0	21.5	S2	V		0.00		2.07
05.août		F	M4x	x		AUT	Sch	Sch	Al W1	C2	Average																			290.1	201.1	89.0	46.0	21.5	S2	V		0.00		2.07
05.août		F	M4x	x		CAN	Hud	Hud	Al W	C2	1	159.2		27.8	45.3	69.0	40.1	17.5	41.2	17.8	17.4	6.0	27.8	21.8	7.7	13.5	17.5	33.0	6.9	289.0	203.0	86.0	46.0	21.5	S2		16.80	0.40	2.53	2.17
05.août		F	M4x	x		CAN	Hud	Hud	Al W	C2	2	159.0		25.0	39.5	66.0	40.2	14.5	41.0	18.5	18.0	6.0	26.0	20.0	6.3	13.5	17.5	32.0	7.2	289.0	203.0	86.0	46.0	21.5	S2		17.00	0.50	2.53	2.17
05.août		F	M4x	x		CAN	Hud	Hud	Al W	C2	3	158.8		23.0	44.0	68.0	40.1	21.0	45.0	19.5	18.9	6.0	27.0	21.0	7.1	12.5	15.0	32.5	4.4	289.0	203.0	86.0	46.0	21.5	S2		17.20	0.60	2.53	2.17
05.août		F	M4x	x		CAN	Hud	Hud	Al W	C2	4	158.9		23.5	40.5	65.5	39.4	17.0	42.0	19.4	19.3	6.0	25.0	19.0	5.5	13.0	18.0	32.0	9.0	289.0	203.0	86.0	46.0	21.5	S2		17.10	0.10	2.53	2.17
05.août		F	M4x	x		CAN	Hud	Hud	Al W	C2	Average	159.0		24.8	42.3	67.1	40.0	17.5	42.3	18.8	18.4	6.0	26.5	20.5	6.6	13.1	17.0	32.4	6.9	289.0	203.0	86.0	46.0	21.5	S2	0.0	17.03	0.40	2.53	2.17
05.août		F	M4x	x		CRO	Emp	Emp	Al 3	C2	1	157.5		17.0	34.0	57.0	41.6	17.0	40.0	17.5	15.5	10.5	28.0	17.5	4.5	10.0	13.0	29.5	5.8	288.5	201.5	87.0	46.0	21.5	S2		20.50	2.00	2.53	2.13
05.août		F	M4x	x		CRO	Emp	Emp	Al 3	C2	2	157.5		15.5	39.5	61.5	42.1	24.0	46.0	19.2	17.6	10.5	28.4	17.9	4.7	12.0	13.5	29.5	2.9	288.5	201.5	87.0	46.0	21.5	S2		20.50	1.60	2.53	2.13
05.août		F	M4x	x		CRO	Emp	Emp	Al 3	C2	3	157.5		18.0	35.0	58.0	47.2	17.0	40.0	17.5	15.7	9.8	28.4	18.6	4.4	11.5	14.0	29.0	4.9	288.5	201.5	87.0	46.0	21.5	S2		20.50	1.80	2.53	2.13
05.août		F	M4x	x		CRO	Emp	Emp	Al 3	C2	4	157.5		15.5	36.5	59.5	44.0	21.0	44.0	16.7	15.1	10.1	29.7	19.6	5.2	13.5	13.0	31.0	-0.9	288.5	201.5	87.0	46.0	21.5	S2		20.50	1.60	2.53	2.13
05.août		F	M4x	x		CRO	Emp	Emp	Al 3	C2	Average	157.5		16.5	36.3	59.0	43.7	19.8	42.5	17.7	16.0	10.2	28.6	18.4	4.7	11.8	13.4	29.8	3.2	288.5	201.5	87.0	46.0	21.5	S2	0.0	20.50	1.75	2.53	2.13
05.août		F	M4x	x		CZE	Fil	Fil	Al 3	C2	1	158.0		14.5	40.0	64.5	43.5	25.5	50.0	17.6	17.0	10.8	28.5	17.7	3.3	10.0	13.5	31.5	6.4	288.0	200.0	88.0	46.0	21.5	S2		22.00	0.60	2.51	2.08
05.août		F	M4x	x		CZE	Fil	Fil	Al 3	C2	2	158.5		14.0	30.5	54.5	44.8	16.5	40.5	18.2	16.4	10.8	29.2	18.4	2.9	10.5	13.0	33.0	4.3	288.0	200.0	88.0	46.0	21.5	S2		21.50	1.80	2.50	2.08
05.août		F	M4x	x		CZE	Fil	Fil	Al 3	C2	3	158.5		18.0	36.0	61.0	43.5	18.0	43.0	17.7	16.4	10.8	29.5	18.7	3.6	9.0	13.0	33.0	6.9	288.0	200.0	88.0	46.0	21.5	S2		21.50	1.30	2.50	2.08
05.août		F	M4x	x		CZE	Fil	Fil	Al 3	C2	4	158.0		15.0	34.0	58.0	40.8	19.0	43.0	17.5	16.3	10.9	28.4	17.5	4.2	10.0	13.0	30.5	5.6	288.0	200.0	88.0	46.0	21.5	S2		22.00	1.20	2.51	2.08
05.août		F	M4x	x		CZE	Fil	Fil	Al 3	C2	Average	158.3		15.4	35.1	59.5	43.2	19.8	44.1	17.8	16.5	10.8	28.9	18.1	3.5	9.9	13.1	32.0	5.8	288.0	200.0	88.0	46.0	21.5	S2	0.0	21.75	1.23	2.50	2.08
05.août		F	M4x	x		DEN	Emp	Emp	Al 3	C2	1	158.0		22.5	41.5	64.0	44.5	19.0	41.5	18.5	16.0	10.8	30.0	19.2	3.8	11.0	11.0	33.0	0.0	290.0	202.5	87.5	44.0	21.5	BB		21.00	1.80	2.54	2.14
05.août		F	M4x	x		DEN	Emp	Emp	Al 3	C2	2	157.8		23.5	38.0	60.5	45.6	14.5	37.0	19.8	18.0	11.5	29.7	18.2	2.5	10.0	14.5	33.0	7.8	290.0	202.5	87.5	44.0	21.5	BB		21.20	1.80	2.54	2.14
05.août		F	M4x	x		DEN	Emp	Emp	Al 3	C2	3	157.6		19.5	40.5	63.0	43.2	21.0	43.5	20.0	18.6	11.4	27.0	15.6	1.9	10.5	15.0	30.0	8.6	290.0	202.5	87.5	44.0	21.5	BB		21.40	1.40	2.54	2.14
05.août		F	M4x	x		DEN	Emp	Emp	Al 3	C2	4	156.7		21.4	38.5	61.5	42.9	17.1	40.1	19.0	17.4	11.5	27.0	15.5	2.3	14.0	13.0	29.0	-2.0	290.0	202.5	87.5	44.0	21.5	BB		22.30	1.60	2.56	2.14
05.août		F	M4x	x		DEN	Emp	Emp	Al 3	C2	Average	157.5		21.7	39.6	62.3	44.1	17.9	40.5	19.3	17.5	11.3	28.4	17.1	2.6	11.4	13.4	31.3	3.6	290.0	202.5	87.5	44.0	21.5	BB	0.0	21.48	1.84	2.55	2.14
03.août		F	M4x	x		FRA	Fil	Fil	CF W1	C2	1	158.0		23.0	37.5	60.5	42.9	14.5	37.5	16.0	15.7	8.4	27.5	19.1	4.1	10.0	13.0	33.0	5.2	291.0	203.5	87.5	45.5	21.5	S2		21.00	0.30	2.55	2.14
03.août		F	M4x	x		FRA	Fil	Fil	CF W1	C2	2	159.0		23.0	36.2	60.5	43.3	13.2	37.5	15.7	14.5	6.6	28.2	21.6	6.5	10.5	13.0	33.0	4.3	290.0	203.0	87.0	45.5	21.5	S2		19.00	1.20	2.53	2.15
03.août		F	M4x	x		FRA	Fil	Fil	CF W1	C2	3	159.0		23.5	43.8	68.5	41.0	20.3	45.0	16.6	15.9	7.5	27.5	20.0	6.4	11.5	12.5	31.0	1.8	291.0	204.0	87.0	45.5	21.5	S2		19.00	0.70	2.54	2.16
03.août		F	M4x	x		FRA	Fil	Fil	CF W1	C2	4	158.8		23.4	36.0	61.8	40.0	12.6	38.4	14.8	14.0	7.8	27.6	19.8	6.5	10.5	13.5	31.0	5.5	290.5	203.5	87.0	45.5	21.5	S2		19.20	0.80	2.54	2.15
05.août		F	M4x	x		FRA	Fil	Fil	Al 3	C2	Average	158.3		15.4	35.1	59.5	43.2	19.8	44.1	17.8	16.5	10.8	28.9	18.1	3.5	9.9	13.1	32.0	5.8	288.0	200.0	88.0	46.0	21.5	S2	0.0	21.80	1.20	1.25	2.08
01.août		F	M4x	x		GBR	Emp	Emp	Al 3	C2	1	158.8		16.5	34.5	56.5	41.5	18.0	40.0	16.0	15.3	10.8	28.0	17.2	4.1	10.2	13.8	29.8	6.9	287.0	199.5	87.5	45.5	21.5	S2		20.20	0.70	2.49	2.09
01.août		F	M4x	x		GBR	Emp	Emp	Al 3	C2	2	158.5		22.0	33.5	55.0	42.5	11.5	33.0	17.3	16.2	11.0	27.5	16.5	3.1	10.4	14.2	29.8	7.3	287.0	199.5	87.5	45.5	21.5	S2		20.50	1.10	2.49	2.09

1 General Information | **2 Manufacturer's Information** | **3 Span and Arc position** | **4 Relative Height Data** | **5 Splay** | **6 Oar data** | **7 Gearing**

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
01.août	F		M4x	x		GBR	Emp	Emp	Al 3	C2	3	158.6	17.5	32.5	55.5	42.0	15.0	38.0	16.9	16.6	10.9	27.5	16.6	2.9	9.8	13.9	30.7	7.7	287.0	199.5	87.5	45.5	21.5	S2		20.40	0.30	2.49	2.09
01.août	F		M4x	x		GBR	Emp	Emp	Al 3	C2	4	158.5	17.5	34.5	55.0	42.6	17.0	37.5	16.7	16.5	11.0	27.5	16.5	3.5	10.5	14.0	28.8	7.0	287.0	199.5	87.5	45.5	21.5	S2		20.50	0.20	2.49	2.09
01.août	F		M4x	x		GBR	Emp	Emp	Al 3	C2	Average	158.6	18.4	33.8	55.5	42.2	15.4	37.1	16.7	16.2	10.9	27.6	16.7	3.4	10.2	14.0	29.8	7.2	287.0	199.5	87.5	45.5	21.5	S2	0.0	20.40	0.57	2.49	2.09
03.août	F		M4x	x		HUN	Fil	Fil	Al W1	C2	1	157.8	11.5	33.0	54.0	42.5	21.5	42.5	18.8	17.5	9.6	26.2	16.6	3.1	10.0	12.5	30.0	4.8	283.0	196.0	87.5	46.0	23.0	F2S	V	21.20	1.30	2.46	2.05
03.août	F		M4x	x		HUN	Fil	Fil	Al W1	C2	2	157.5	11.3	35.5	59.0	24.7	24.2	47.7	19.4	17.5	9.5	28.5	19.0	10.5	12.5	13.0	30.5	0.9	283.0	196.0	87.5	46.0	23.0	F2S	V	21.50	1.90	2.46	2.05
03.août	F		M4x	x		HUN	Fil	Fil	Al W1	C2	3	157.5	12.8	32.5	55.0	42.7	19.7	42.2	19.3	17.5	6.5	28.5	22.0	8.0	11.5	13.5	31.0	3.7	283.0	196.0	87.5	46.0	23.0	F2S	V	21.50	1.80	2.46	2.05
03.août	F		M4x	x		HUN	Fil	Fil	Al W1	C2	4	157.5	12.8	31.5	54.0	43.2	18.7	41.2	19.0	17.0	9.0	25.5	16.5	2.4	11.5	13.5	31.0	3.7	283.0	196.0	87.5	46.0	23.0	F2S	V	21.50	2.00	2.46	2.05
03.août	F		M4x	x		HUN	Fil	Fil	Al W1	C2	Average	157.6	12.1	33.1	55.5	38.3	21.0	43.4	19.1	17.4	8.7	27.2	18.5	6.0	11.4	13.1	30.6	3.3	283.0	196.0	87.5	46.0	23.0	F2S	V	21.43	1.75	2.46	2.05
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	1	159.8	22.0	40.0	63.0	42.6	18.0	41.0	19.0	18.4	11.3	29.2	17.9	3.9	11.5	13.5	31.0	3.7	289.0	200.0	89.0	45.5	21.5	S2		22.20	0.60	2.48	2.06
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	2	159.7	15.5	34.5	61.0	42.0	19.0	45.5	18.4	18.4	10.0	29.6	19.6	4.9	9.0	14.0	33.0	8.7	289.0	200.0	89.0	45.5	21.5	S2		22.30	0.00	2.48	2.06
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	3	159.1	18.5	38.0	62.0	41.8	19.5	43.5	17.5	18.5	9.4	28.0	18.6	5.5	13.5	11.5	29.5	-3.9	289.0	200.0	89.0	45.5	21.5	S2		22.90	-1.00	2.49	2.06
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	4	159.7	18.5	36.0	60.0	41.9	17.5	41.5	18.0	18.0	10.0	26.8	16.8	3.4	11.5	13.0	30.0	2.9	288.0	199.0	89.0	45.5	21.5	S2		22.30	0.00	2.47	2.05
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	4						0.0	0.0											287.5	198.5	89.0	45.5	21.5	S2			0.00		2.04
05.août	F		M4x	x		ITA	Fil	Fil	CF 2	C2	Average	159.5	17.5	36.2	61.0	41.9	14.0	32.6	18.0	18.3	9.8	28.1	18.3	4.6	11.3	12.8	30.8	2.6	288.4	199.4	89.0	45.5	21.5	S2	0.0	22.50	-0.25	2.48	2.05
03.août	F		M4x	x		JPN	Fil	Fil	Al W1	C2	1	157.8	19.0	32.0	56.0	41.3	13.0	37.0	16.8	15.0	8.8	21.0	12.2	-1.0	11.0	13.0	30.0	3.8	288.0	201.0	87.5	44.5	21.5	S2		20.20	1.80	2.52	2.13
03.août	F		M4x	x		JPN	Fil	Fil	Al W1	C2	2	157.9	21.0	36.0	59.0	43.1	15.0	38.0	17.0	14.5	8.9	22.0	13.1	-0.5	9.0	14.0	30.0	9.6	288.0	200.5	87.5	44.5	21.5	S2		21.10	2.50	2.51	2.11
03.août	F		M4x	x		JPN	Fil	Fil	Al W1	C2	3	157.9	20.0	38.0	62.0	42.2	18.0	42.0	16.5	14.9	8.7	23.2	14.5	1.1	9.0	14.0	30.0	9.6	287.5	200.0	87.5	44.5	21.5	S2		21.10	1.60	2.51	2.10
03.août	F		M4x	x		JPN	Fil	Fil	Al W1	C2	4	158.3	23.0	36.0	60.0	42.3	13.0	37.0	16.6	14.6	8.8	22.0	13.2	-0.7	11.0	14.0	31.0	5.5	287.5	200.0	87.5	44.5	21.5	S2		20.70	2.00	2.50	2.10
03.août	F		M4x	x		JPN	Fil	Fil	Al W1	C2	Average	158.0	20.8	35.5	59.3	42.2	14.8	38.5	16.7	14.8	8.8	22.1	13.3	-0.3	10.0	13.8	30.3	7.1	287.8	200.4	87.4	44.5	21.5	S2	0.0	20.78	1.98	2.51	2.11
05.août	F		M4x	x		LAT	Fil	Fil	Al 3	C2	1	161.0	18.0	39.0	61.0	40.8	21.0	43.0	18.7	16.5	10.2	27.5	17.3	4.0	9.5	13.5	30.5	7.5	291.0	205.5	85.5	46.0	21.5	S2	V	14.00	2.20	2.53	2.21
05.août	F		M4x	x		LAT	Fil	Fil	Al 3	C2	2	158.5	17.5	39.0	63.0	42.6	21.5	45.5	19.7	17.3	10.3	28.9	18.6	4.4	12.0	14.0	31.5	3.6	291.0	205.5	85.5	46.0	21.5	S2	V	16.50	2.40	2.57	2.21
05.août	F		M4x	x		LAT	Fil	Fil	Al 3	C2	3	159.0	17.5	37.0	62.0	41.5	19.5	44.5	18.6	16.8	10.2	27.5	17.3	3.4	10.5	13.5	31.5	5.5	291.0	205.5	85.5	46.0	21.5	S2	V	16.00	1.80	2.56	2.21
05.août	F		M4x	x		LAT	Fil	Fil	Al 3	C2	4	159.0	16.0	39.5	63.5	40.0	23.5	47.5	19.7	18.0	10.6	27.4	16.8	3.7	12.0	13.5	30.5	2.8	291.0	205.5	85.5	46.0	21.5	S2	V	16.00	1.70	2.56	2.21
05.août	F		M4x	x		LAT	Fil	Fil	Al 3	C2	Average	159.4	17.3	38.6	62.4	41.2	21.4	45.1	19.2	17.2	10.3	27.8	17.5	3.9	11.0	13.6	31.0	4.9	291.0	205.5	85.5	46.0	21.5	S2	V	15.63	2.03	2.55	2.21
05.août	P		M4x			NED	Emp	Emp	Al W1		1	160.0	18.5	38.0	61.5	40.7	19.5	43.0	17.9	16.9	8.0	24.0	16.0	3.2	11.0	12.5	29.5	2.9									1.00		
05.août	P		M4x			NED	Emp	Emp	Al W1		2	159.5	15.3	40.0	62.0	42.9	24.7	46.7	18.0	16.5	7.3	24.0	16.7	3.8	11.5	12.5	28.5	2.0									1.50		
05.août	P		M4x			NED	Emp	Emp	Al W1		3	159.3	15.0	37.0	60.5	41.7	22.0	45.5	17.6	16.4	7.5	25.0	17.5	4.0	11.0	14.5	30.5	6.6									1.20		
05.août	P		M4x			NED	Emp	Emp	Al W1		4	159.3	19.0	36.5	60.0	43.2	17.5	41.0	18.2	17.4	7.7	27.0	19.3	5.0	10.5	14.5	31.5	7.3									0.80		
05.août	P		M4x			NED	Emp	Emp	Al W1		Average	159.5	17.0	37.9	61.0	42.1	20.9	44.1	17.9	16.8	7.6	25.0	17.4	4.0	11.0	13.5	30.0	4.7						0	0.0		1.13		
03.août	F		M4x	x		NOR	Fil	Fil	Al 3	C2	1	158.0	13.9	34.0	58.0	42.8	20.1	44.1	19.0	17.1	10.1	26.3	18.2	4.4	10.0	13.0	30.5	5.6	289.6	201.1	88.5	44.5	21.5	BB	V	23.00	1.90	2.52	2.09
03.août	F		M4x	x		NOR	Fil	Fil	Al 3	C2	2	158.8	13.8	39.2	63.0	42.8	25.4	49.2	20.4	17.3	10.1	32.0	21.9	7.2	11.0	12.5	32.5	2.6	289.6	201.1	88.5	44.5	21.5	BB	V	22.20	3.10	2.51	2.09
03.août	F		M4x	x		NOR	Fil	Fil	Al 3	C2	3	158.4	19.0	36.8	63.0	41.7	17.8	44.0	19.8	18.0	10.1	31.4	21.3	6.7	11.0	12.5	33.0	2.6	289.6	201.1	88.5	44.5	21.5	BB	V	22.60	1.80	2.51	2.09
03.août	F		M4x	x		NOR	Fil	Fil	Al 3	C2	4	160.3	14.8	38.1	61.0	40.6	23.3	46.2	19.1	16.8	10.1	29.9	19.8	6.8	10.5	13.0	30.0	4.8	289.6	201.1	88.5	44.5	21.5	BB	V	20.70	2.30	2.48	2.09
03.août	F		M4x	x		NOR	Fil	Fil	Al 3	C2	Average	158.9	15.4	37.0	61.3	42.0	21.7	45.9	19.6	17.3	10.1	30.4	20.3	6.3	10.6	12.8	31.5	3.9	289.6	201.1	88.5	44.5	21.5	BB	V	22.13	2.28	2.51	2.09
05.août	F		M4x	x		NZL	Fil	Fil	CF W1	Cro	1	158.0	14.5	37.5	60.0	42.7	23.0	45.5	19.4	18.5	8.6	26.0	17.4	2.7	9.0	13.5	32.5	7.9	289.0	200.0	89.0	44.0	22.0	Sli		24.00	0.90	2.51	2.07
05.août	F		M4x	x		NZL	Fil	Fil	CF W1	Cro	2	158.0	13.5	31.0	56.0	42.5	17.5	42.5	19.0	19.0	8.5	25.0	16.5	1.7	10.0	13.0	33.0	5.2	289.0	200.0	89.0	44.0	22.0	Sli		24.00	0.00	2.51	2.07
05.août	F		M4x	x		NZL	Fil	Fil	CF W1	Cro	3	158.0	13.5	37.0	61.5	42.0	23.5	48.0	19.4	18.5	8.7	25.2	16.5	1.3	11.5	13.0	34.0	2.5	289.0	200.0	89.0	44.0	22.0	Sli		24.00	0.90	2.51	2.07
05.août	F		M4x	x		NZL	Fil	Fil	CF W1	Cro	4	157.6	15.0	34.0	58.0	42.6	19.0	43.0	19.2	18.6	8.5	25.5	17.0	1.9	10.0	13.0	33.5	5.1	289.0	200.0	89.0	44.0	22.0	Sli		24.40	0.60	2.51	2.07
05.août	F		M4x	x		NZL	Fil	Fil	CF W1	Cro	Average	157.9	14.1	34.9	58.9	42.5	20.8	44.8	19.3	18.7	8.6	25.4	16.9	1.9	10.1	13.1	33.3	5.2	289.0	200.0	89.0	44.0	22.0	Sli	0.0	24.10	0.60	2.51	2.07
03.août	F		M4x	x		POL	Emp	Emp	Al 3	C2	1	158.0	16.0	34.0	58.0	54.4	18.0	42.0	18.2	15.6	10.0	30.5	20.5	3.4	13.5	12.5	31.5	-1.8	290.0	202.0	88.0	45.5	22.5	S2	V	22.00	2.60	2.53	2.11
03.août	F		M4x	x		POL	Emp	Emp	Al 3	C2	2	158.4	15.5	33.0	58.2	44.7	17.5	42.7	18.3	16.4	10.6	30.0	19.4	5.1	12.5	12.5	30.5	0.0	290.0	202.0	88.0	45.5	22.5	S2	V	21.60	1.90	2.53	2.11
03.août	F		M4x	x		POL	Emp	Emp	Al 3	C2	3	159.4	15.4	39.0	63.0	44.7	23.6	47.6	17.8	15.5	9.9	29.2	19.3	4.8	12.5	12.5	31.0	0.0	290.0	202.0	88.0	45.5	22.5	S2	V	20.60	2.30	2.51	2.11

1 General Information							2 Manufacturer's Information				3 Span and Arc position									4 Relative Height Data						5 Splay				6 Oar data							7 Gearing			
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
03.août		F	M4x	x		POL	Emp	Emp	Al 3	C2	4	158.5	14.5	33.0	56.8	41.7	18.5	42.3	18.8	16.5	9.8	27.5	17.7	4.2	13.0	13.5	30.5	0.9	290.0	202.0	88.0	45.5	22.5	S2	V	21.50	2.30	2.52	2.11
03.août		F	M4x	x		POL	Emp	Emp	Al 3	C2	Average	158.6	15.4	34.8	59.0	46.4	19.4	43.7	18.3	16.0	10.1	29.3	19.2	4.4	12.9	12.8	30.9	-0.2	290.0	202.0	88.0	45.5	22.5	S2	V	21.43	2.28	2.52	2.11
05.août		F	M4x	x		ROM	Fil	Fil	Al W1	Cro	1	158.5	18.0	34.0	58.0	42.8	16.0	40.0	18.0	16.6	8.0	26.0	18.0	3.3	10.0	12.5	32.5	4.4	291.0	202.5	88.5	44.0	22.0	Sli		22.50	1.40	2.53	2.11
05.août		F	M4x	x		ROM	Fil	Fil	Al W1	Cro	2	158.5	18.0	40.5	64.0	43.5	22.5	46.0	18.5	17.4	8.0	26.5	18.5	3.8	11.7	13.0	32.0	2.3	291.0	202.5	88.5	44.0	22.0	Sli		22.50	1.10	2.53	2.11
05.août		F	M4x	x		ROM	Fil	Fil	Al W1	Cro	3	158.5	17.0	37.5	62.5	43.0	20.5	45.5	18.5	17.3	8.0	28.5	20.5	5.0	11.5	12.0	34.0	0.8	291.0	202.5	88.5	44.0	22.0	Sli		22.50	1.20	2.53	2.11
05.août		F	M4x	x		ROM	Fil	Fil	Al W1	Cro	4	158.5	14.0	35.8	59.5	40.0	21.8	45.5	18.5	17.0	8.0	24.5	16.5	3.2	12.0	13.5	31.0	2.8	291.0	202.5	88.5	44.0	22.0	Sli		22.50	1.50	2.53	2.11
05.août		F	M4x	x		ROM	Fil	Fil	Al W1	Cro	Average	158.5	16.8	37.0	61.0	42.3	20.2	44.3	18.4	17.1	8.0	26.4	18.4	3.8	11.3	12.8	32.4	2.6	291.0	202.5	88.5	44.0	22.0	Sli	0.0	22.50	1.30	2.53	2.11
05.août		F	M4x	x		RUS	Fil	Fil	CF W1	C2	1	158.8	19.0	40.0	63.5	40.0	21.0	44.5	18.9	17.9	9.0	28.0	19.0	5.5	10.5	13.5	31.5	5.5	288.0	200.0	88.0	45.5	21.5	S2		21.20	1.00	2.49	2.09
05.août		F	M4x	x		RUS	Fil	Fil	CF W1	C2	2	159.2	19.0	42.8	62.0	45.0	23.8	43.0	19.0	17.5	9.0	28.0	19.0	4.4	11.0	13.5	31.0	4.6	288.0	200.0	88.0	45.5	21.5	S2		20.80	1.50	2.49	2.09
05.août		F	M4x	x		RUS	Fil	Fil	CF W1	C2	3	158.8	18.0	35.0	60.5	42.5	17.0	42.5	19.4	17.5	9.0	27.5	18.5	4.1	11.0	13.5	32.0	4.5	288.0	200.0	88.0	45.5	21.5	S2		21.20	1.90	2.49	2.09
05.août		F	M4x	x		RUS	Fil	Fil	CF W1	C2	4	158.0	19.0	32.5	57.5	44.8	13.5	38.5	18.6	17.5	9.5	27.2	17.7	3.6	10.0	13.5	30.0	6.7	288.0	200.0	88.0	45.5	21.5	S2		22.00	1.10	2.51	2.09
05.août		F	M4x	x		RUS	Fil	Fil	CF W1	C2	Average	158.7	18.8	37.6	60.9	43.1	18.8	42.1	19.0	17.6	9.1	27.7	18.6	4.4	10.6	13.5	31.1	5.3	288.0	200.0	88.0	45.5	21.5	S2	0.0	21.30	1.38	2.50	2.09
05.août		F	M4x	x		SRB	Fil	Fil	Al 3	Cro	1	159.0	16.5	36.5	61.5	42.5	20.0	45.0	17.7	17.5	13.0	32.0	19.0	3.5	11.5	13.5	32.5	3.5	287.8	198.8	89.0	44.0	22.0	Sli		23.00	0.20	2.48	2.06
05.août		F	M4x	x		SRB	Fil	Fil	Al 3	Cro	2	159.0	18.7	38.0	62.0	44.0	19.3	43.3	17.5	16.9	12.5	30.2	17.7	2.9	12.0	13.5	32.0	2.7	287.5	198.5	89.0	44.0	22.0	Sli		23.00	0.60	2.47	2.05
05.août		F	M4x	x		SRB	Fil	Fil	Al 3	Cro	3	159.1	20.0	35.0	60.0	43.5	15.0	40.0	17.5	17.0	12.5	31.0	18.5	3.8	11.0	14.0	32.0	5.4	288.0	198.5	89.5	44.0	22.0	Sli		23.90	0.50	2.47	2.04
05.août		F	M4x	x		SRB	Fil	Fil	Al 3	Cro	4	159.1	17.5	45.5	70.5	42.5	28.0	53.0	17.7	16.6	12.5	30.0	17.5	2.9	12.0	13.5	32.5	2.6	288.0	199.0	89.0	44.0	22.0	Sli		22.90	1.10	2.48	2.06
05.août		F	M4x	x		SRB	Fil	Fil	Al 3	Cro	Average	159.1	18.2	38.8	63.5	43.1	20.6	45.3	17.6	17.0	12.6	30.8	18.2	3.5	11.6	13.6	32.3	3.6	287.8	198.7	89.1	44.0	22.0	Sli	0.0	23.20	0.60	2.47	2.05
31.juil		P	M4x	x		USA	Fil	Fil	Al W1	C2	1	159.1	20.2	30.0	53.5	44.3	9.8	33.3	18.0	17.0	8.0				10.5	13.0	32.5	4.4	288.7	200.0	88.7	55.0	21.5	S2		22.30	1.00	2.49	2.01
31.juil		P	M4x	x		USA	Fil	Fil	Al W1	C2	2	159.0	17.3	35.4	58.5	40.3	18.1	41.2	18.2	17.1	8.0				9.5	13.0	32.5	6.2	288.7	200.0	88.7	55.0	21.5	S2		22.40	1.10	2.49	2.01
31.juil		P	M4x	x		USA	Fil	Fil	Al W1	C2	3	159.0	19.4	41.8	63.7	40.8	22.4	44.3	18.2	17.8	8.2				10.2	13.0	32.5	4.9	288.7	200.0	88.7	55.0	21.5	S2		22.40	0.40	2.49	2.01
31.juil		P	M4x	x		USA	Fil	Fil	Al W1	C2	4	159.1	24.8	40.6	61.4	40.4	15.8	36.6	18.1	17.1	7.8				10.2	13.5	32.5	5.8	288.7	200.0	88.7	55.0	21.5	S2		22.30	1.00	2.49	2.01
31.juil		P	M4x	x		USA	Fil	Fil	Al W1	C2	Average	159.1	20.4	37.0	59.3	41.5	16.5	38.9	18.1	17.3	8.0				10.1	13.1	32.5	5.3	288.7	200.0	88.7	55.0	21.5	S2	0.0	22.35	0.87	2.49	2.01
Average for class M4x												158.6	17.8	36.9	60.4	42.3	18.9	42.1	18.3	17.0	9.3	27.6	18.1	4.1	11.1	13.5	31.2	4.4	288.9	200.9	88.0	45.5	21.7			21.25	1.17	2.50	2.10
Standard deviation M4x												0.8	3.4	3.2	3.4	2.6	4.0	5.6	1.0	1.1	1.6	2.2	1.9	1.9	1.2	1.1	1.3	2.6	1.8	2.0	1.0	2.1	0.4			2.07	0.76	0.13	0.04
% standard deviation M4x												0.5%	19.3%	8.7%	5.6%	6.2%	21.3%	13.3%	5.7%	6.6%	17.4%	7.9%	10.3%	45.6%	10.4%	8.3%	4.1%	58.7%	0.6%	1.0%	1.1%	4.7%	1.9%			0.10	0.65	0.05	0.02
05.août		F	W4x	x		ARG	Fil	CD	Al 2	Cro	1	158.9	18.0	30.0	52.0	41.5	12.0	34.0	17.0	15.3	11.3	26.7	15.4	3.3	11.0	13.5	27.5	5.2	287.0	199.0	88.0	44.0	22.0	Sli		21.10	1.70	2.48	2.08
05.août		F	W4x	x		ARG	Fil	CD	Al 2	Cro	2	158.0	14.0	30.0	52.0	40.3	16.0	38.0	17.5	17.0	11.4	28.2	16.8	5.2	10.5	14.0	27.0	7.4	287.0	199.0	88.0	44.0	22.0	Sli		22.00	0.50	2.49	2.08
05.août		F	W4x	x		ARG	Fil	CD	Al 2	Cro	3	158.1	10.5	25.5	48.0	42.2	15.0	37.5	17.2	15.8	11.6	28.6	17.0	4.7	11.0	13.0	27.5	4.2	287.0	199.0	88.0	44.0	22.0	Sli		21.90	1.40	2.49	2.08
05.août		F	W4x	x		ARG	Fil	CD	Al 2	Cro	4	158.1	12.0	27.0	50.0	39.6	15.0	38.0	17.2	15.2	11.2	27.5	16.3	4.2	14.0	14.5	28.5	1.0	287.0	199.0	88.0	44.0	22.0	Sli		21.90	2.00	2.49	2.08
05.août		F	W4x	x		ARG	Fil	CD	Al 2	Cro	Average	158.3	13.6	28.1	50.5	40.9	14.5	36.9	17.2	15.8	11.4	27.8	16.4	4.3	11.6	13.8	27.6	4.5	287.0	199.0	88.0	44.0	22.0	Sli	0.0	21.73	1.40	2.49	2.08
31.juil		P	W4x	x		AUS	Syk	Syk	Al W1	Cro	1	157.5	17.5	38.5	62.0	40.5	21.0	44.5	17.7	17.0	3.6				11.0	12.5	28.5	3.0	287.0	199.0	88.0	44.0	22.0	Sli		22.50	0.70	2.50	2.08
31.juil		P	W4x	x		AUS	Syk	Syk	Al W1	Cro	2	157.5	16.5	35.0	55.5	40.5	18.5	39.0	19.2	18.0	6.0				10.5	13.0	28.5	5.0	287.0	199.0	88.0	44.0	22.0	Sli		22.50	1.20	2.50	2.08
31.juil		P	W4x	x		AUS	Syk	Syk	Al W1	Cro	3	158.0	14.6	38.6	56.5	42.0	24.0	41.9	19.2	18.5	6.2				10.0	12.5	29.5	4.9	287.0	199.0	88.0	44.0	22.0	Sli		22.00	0.70	2.49	2.08
31.juil		P	W4x	x		AUS	Syk	Syk	Al W1	Cro	4	157.0	16.8	38.1	58.5	42.5	21.3	41.7	18.8	17.8	6.0				10.5	14.0	29.5	6.8	287.0	199.0	88.0	44.0	22.0	Sli		23.00	1.00	2.51	2.08
31.juil		P	W4x	x		AUS	Syk	Syk	Al W1	Cro	Average	157.5	16.4	37.6	58.1	41.4	21.2	41.8	18.7	17.8	5.5				10.5	13.0	29.0	4.9	287.0	199.0	88.0	44.0	22.0	Sli	0.0	22.50	0.90	2.50	2.08
05.août		F	W4x	x		BLR	Emp	Emp	Al 3	Cro	1	160.0	21.0	33.0	55.0	43.1	12.0	34.0	18.0	16.9	11.1	26.9	15.8	3.3	12.5	14.0	27.5	3.1	287.5	199.5	88.5	44.0	22.0	Sli		21.00	1.10	2.47	2.08
05.août		F	W4x	x		BLR	Emp	Emp	Al 3	Cro	2	160.2	22.8	34.0	57.5	41.7	11.2	34.7	18.3	17.7	11.3	27.8	16.5	3.5	12.5	14.5	29.3	3.9	287.5	199.5	88.5	44.0	22.0	Sli		20.80	0.60	2.47	2.08
05.août		F	W4x	x		BLR	Emp	Emp	Al 3	Cro	3	159.4	22.5	35.3	56.5	41.0	12.8	34.0	18.5	17.5	11.6	27.2	15.6	3.8	13.5	14.5	27.0	2.1	287.5	199.5	88.5	44.0	22.0	Sli		21.60	1.00	2.48	2.08
05.août		F	W4x	x		BLR	Emp	Emp	Al 3	Cro	4	160.0	21.0	34.0	56.0	38.1	13.0	35.0	18.5	17.3	11.6	25.5	13.9	2.4	11.5	13.5	28.0	4.1	287.5	199.5	88.5	44.0	22.0	Sli		21.00	1.20	2.47	2.08
05.août		F	W4x	x		BLR	Emp	Emp	Al 3	Cro	Average	159.9	21.8	34.1	56.3	41.0	12.3	34.4	18.3	17.4	11.4	26.9	15.5	3.2	12.5	14.1	27.9	3.3	287.5	199.5	88.5	44.0	22.0	Sli	0.0	21.10	0.98	2.47	2.08

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
05.août	F		W4x	x		DEN	Fil	Fil	Al 3	C2	1	156.8	15.5	35.0	54.0	44.2	19.5	38.5	17.8	16.0	15.0	26.5	11.5	-0.1	10.0	14.0	25.0	9.2	288.0	201.0	87.0	44.0	21.5	BB		21.20	1.80	2.54	2.13
05.août	F		W4x	x		DEN	Fil	Fil	Al 3	C2	2	157.5	10.0	31.0	51.5	44.5	21.0	41.5	18.4	17.0	11.5	26.5	15.0	2.9	11.0	14.5	26.0	7.7	288.0	201.0	87.0	44.0	21.5	BB		20.50	1.40	2.53	2.13
05.août	F		W4x	x		DEN	Fil	Fil	Al 3	C2	3	157.6	15.5	38.0	59.0	43.7	22.5	43.5	18.9	17.3	11.7	25.8	14.1	1.7	11.0	14.0	27.0	6.4	288.0	201.0	87.0	44.0	21.5	BB		20.40	1.60	2.53	2.13
05.août	F		W4x	x		DEN	Fil	Fil	Al 3	C2	4	157.5	12.0	28.0	49.0	46.3	16.0	37.0	17.4	15.8	11.5	27.5	16.0	3.5	13.0	14.0	26.0	2.2	288.0	201.0	87.0	44.0	21.5	BB		20.50	1.60	2.53	2.13
05.août	F		W4x	x		DEN	Fil	Fil	Al 3	C2	Average	157.4	13.3	33.0	53.4	44.7	19.8	40.1	18.1	16.5	12.4	26.6	14.2	2.0	11.3	14.1	26.0	6.4	288.0	201.0	87.0	44.0	21.5	BB	0.0	20.65	1.60	2.53	2.13
31.juil	P		W4x	X		FRA	Fil	Fil	Al W1	C2	1	158.5	15.8	25.3	48.0	41.5	9.5	32.2	17.3	16.5	8.5				9.5	13.5	31.0	7.4	289.0	200.5	88.5	45.0	21.5	S2		22.50	0.80	2.50	2.08
31.juil	P		W4x	X		FRA	Fil	Fil	Al W1	C2	2	158.5	24.2	27.5	52.3	42.0	3.3	28.1	18.1	17.2	8.7				10.0	13.0	31.0	5.5	289.0	200.5	88.5	45.0	21.5	S2		22.50	0.90	2.50	2.08
31.juil	P		W4x	X		FRA	Fil	Fil	Al W1	C2	3	158.2	15.6	28.2	50.6	43.0	12.6	35.0	18.4	16.7	8.7				9.5	13.0	31.5	6.4	289.0	200.5	88.5	45.0	21.5	S2		22.80	1.70	2.51	2.08
31.juil	P		W4x	X		FRA	Fil	Fil	Al W1	C2	4	158.6	18.2	30.5	54.4	44.0	12.3	36.2	18.0	16.8	8.8				11.0	13.5	30.5	4.7	289.0	200.5	88.5	45.0	21.5	S2		22.40	1.20	2.50	2.08
31.juil	P		W4x	X		FRA	Fil	Fil	Al W1	C2	Average	158.5	18.5	27.9	51.3	42.6	9.4	32.9	18.0	16.8	8.7				10.0	13.3	31.0	6.0	289.0	200.5	88.5	45.0	21.5	S2	0.0	22.55	1.15	2.51	2.08
02.août	F		W4x	x		GER	Emp	Emp	Al W1	C2	1	157.7	16.0	29.0	51.0	45.0	13.0	35.0	16.8	15.2	7.4	23.0	15.6	2.5	10.0	15.0	28.0	10.2	285.5	198.5	87.0	46.0	21.5	S2		20.30	1.60	2.49	2.09
02.août	F		W4x	x		GER	Emp	Emp	Al W1	C2	2	159.0	17.0	35.0	58.0	45.0	18.0	41.0	18.1	18.2	8.6	24.1	15.5	1.4	10.0	14.5	30.0	8.6	285.5	198.5	87.0	46.0	21.5	S2		19.00	-0.10	2.47	2.09
02.août	F		W4x	x		GER	Emp	Emp	Al W1	C2	3	158.5	16.5	35.0	55.5	45.0	18.5	39.0	17.1	16.5	7.3	23.0	15.7	1.6	10.0	14.5	30.0	8.6	285.5	198.5	87.0	46.0	21.5	S2		19.50	0.60	2.48	2.09
02.août	F		W4x	x		GER	Emp	Emp	Al W1	C2	4	158.0	16.0	29.0	51.0	45.0	13.0	35.9	16.5	16.5	8.2	24.8	16.6	2.5	10.0	14.5	30.0	8.6	285.5	198.5	87.0	46.0	21.5	S2		20.00	0.00	2.49	2.09
02.août	F		W4x	x		GER	Emp	Emp	Al W1	C2	Average	158.3	16.4	32.0	54.1	45.0	15.6	37.7	17.1	16.6	7.9	23.7	15.9	2.0	10.0	14.6	29.5	9.0	285.5	198.5	87.0	46.0	21.5	S2	0.0	19.70	0.53	2.48	2.09
05.août	F		W4x	x		ITA	Fil	Fil	Al W1	Cro	1	159.3	16.8	34.5	57.0	42.7	17.7	40.2	16.0	16.0	8.9	24.6	15.7	4.6	11.0	13.5	24.5	5.8	288.0	200.0	88.0	43.5	22.0	Sli		20.70	0.00	2.49	2.10
05.août	F		W4x	x		ITA	Fil	Fil	Al W1	Cro	2	159.3	20.0	33.0	55.0	43.0	13.0	35.0	17.0	16.5	9.8	26.8	17.0	3.8	10.5	13.5	29.0	5.9	288.0	200.0	88.0	43.5	22.0	Sli		20.70	0.50	2.49	2.10
05.août	F		W4x	x		ITA	Fil	Fil	Al W1	Cro	3	159.5	19.5	38.2	60.0	44.3	18.7	40.5	18.9	17.9	10.0	26.8	16.8	2.8	10.0	13.0	30.0	5.7	288.0	200.0	88.0	43.5	22.0	Sli		20.50	1.03	2.48	2.10
05.août	F		W4x	x		ITA	Fil	Fil	Al W1	Cro	4	159.0	17.2	31.0	50.0	42.5	13.8	32.8	15.5	14.5	7.7	25.5	17.8	5.4	12.5	14.0	27.5	3.1	288.0	200.0	88.0	43.5	22.0	Sli		21.00	1.00	2.49	2.10
05.août	F		W4x	x		ITA	Fil	Fil	Al W1	Cro	Average	159.3	18.4	34.2	55.5	43.1	15.8	37.1	16.9	16.2	9.1	25.9	16.8	4.2	11.0	13.5	27.8	5.2	288.0	200.0	88.0	43.5	22.0	Sli	0.0	20.73	0.63	2.49	2.10
01.août	P		W4x	x		JPN	Fil	Fil		C2	1	157.8	18.1	29.7	52.2		11.6	34.1	17.0	15.2	8.2	21.0	12.8		10.8	13.5	28.6	6.0	288.0	200.2	87.8	45.5	21.5	S2		21.80	1.80	2.51	2.09
01.août	P		W4x	x		JPN	Fil	Fil		C2	2	160.0	21.6	37.8	60.3		16.2	38.7	17.1	14.3	8.5	21.7	13.2		10.0	14.0	29.0	7.9	288.0	200.1	87.9	45.5	21.5	S2		19.80	2.80	2.48	2.09
01.août	P		W4x	x		JPN	Fil	Fil		C2	3	157.9	19.9	40.4	61.7		20.5	41.8	16.7	14.8	8.6	23.1	14.5		10.4	14.0	29.8	6.9	288.0	200.0	88.0	45.5	21.5	S2		22.10	1.90	2.51	2.09
01.août	P		W4x	x		JPN	Fil	Fil		C2	4	158.2	22.6	38.5	59.4		15.9	36.8	16.7	14.6	8.8	22.2	13.4		12.0	13.8	29.6	3.5	288.0	199.8	88.2	45.5	21.5	S2		22.20	2.10	2.50	2.08
01.août	P		W4x	x		JPN	Fil	Fil		C2	Average	158.5	20.6	36.6	58.4		16.1	37.9	16.9	14.7	8.5	22.0	13.5		10.8	13.9	29.3	6.1	288.0	200.0	88.0	45.5	21.5	S2	0.0	21.48	2.15	2.50	2.09
05.août	F		W4x	x		KOR	Fil	Fil	Al W1	C2	1	157.0	18.0	31.0	52.5	44.3	13.0	34.5	15.6	15.0	6.5	23.6	17.1	4.8	10.0	15.5	26.5	11.9	287.0	200.5	86.5	46.0	21.5	S2		20.00	0.60	2.53	2.13
05.août	F		W4x	x		KOR	Fil	Fil	Al W1	C2	2	157.0	14.5	30.0	53.0	42.1	15.5	38.5	16.0	15.0	7.5	24.6	17.1	3.7	10.0	13.5	30.0	6.7	287.0	200.5	86.5	46.0	21.5	S2		20.00	1.00	2.53	2.13
05.août	F		W4x	x		KOR	Fil	Fil	Al W1	C2	3	157.0	20.0	35.5	58.0	43.0	15.5	38.0	15.6	14.6	6.6	24.0	17.4	4.7	9.0	14.5	28.0	11.3	287.0	200.5	86.5	46.0	21.5	S2		20.00	1.00	2.53	2.13
05.août	F		W4x	x		KOR	Fil	Fil	Al W1	C2	4	157.0	16.5	34.0	56.5	42.5	17.5	40.0	16.1	15.6	6.6	23.7	17.1	4.3	10.5	13.5	28.5	6.0	287.0	200.5	86.5	46.0	21.5	S2		20.00	0.50	2.53	2.13
05.août	F		W4x	x		KOR	Fil	Fil	Al W1	C2	Average	157.0	17.3	32.6	55.0	43.0	15.4	37.8	15.8	15.1	6.8	24.0	17.2	4.4	9.9	14.3	28.3	9.0	287.0	200.5	86.5	46.0	21.5	S2	0.0	20.00	0.78	2.53	2.13
05.août	F		W4x	x		ROM	Fil	Fil	Al W1	Cro	1	158.2	19.0	34.5	56.5	46.5	15.5	37.5	17.0	16.5	11.6	29.8	18.2	3.7	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli		22.80	1.00	2.51	2.09
05.août	F		W4x	x		ROM	Fil	Fil	Al W1	Cro	2	158.0	18.0	36.0	58.0	46.8	18.0	40.0	17.0	16.5	11.6	29.8	18.2	3.7	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli		23.00	0.50	2.51	2.09
05.août	F		W4x	x		ROM	Fil	Fil	Al W1	Cro	3	158.0	18.5	34.0	56.5	45.9	15.5	38.0	17.0	17.0	11.5	28.5	17.0	2.7	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli		23.00	0.00	2.51	2.09
05.août	F		W4x	x		ROM	Fil	Fil	Al W1	Cro	4	158.1	18.5	33.0	56.0	43.4	14.5	37.5	17.9	15.9	11.5	28.5	17.0	3.3	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli		22.90	2.00	2.51	2.09
05.août	F		W4x	x		ROM	Fil	Fil	Al W1	Cro	Average	158.1	18.5	34.4	56.8	45.7	15.9	38.3	17.2	16.4	11.6	29.2	17.6	3.3	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli	0.0	22.93	0.88	2.51	2.09
05.août	F		W4x	x		RUS	Fil	Fil	Al W1	Emp	1	158.9	17.5	28.0	51.0	40.0	10.5	33.5	16.5	15.0	8.8	22.2	13.4	1.0	11.0	14.0	29.0	5.9	287.0	200.0	87.0	44.0	22.0	Sm		19.10	1.50	2.49	2.12
05.août	F		W4x	x		RUS	Fil	Fil	Al W1	Emp	2	159.0	18.5	30.0	53.0	40.0	11.5	34.5	16.7	15.1	8.8	23.9	15.1	1.8	10.0	13.0	31.0	5.5	287.0	200.0	87.0	44.0	22.0	Sm		19.00	1.60	2.49	2.12
05.août	F		W4x	x		RUS	Fil	Fil	Al W1	Emp	3	158.8	23.0	34.0	56.5	41.5	11.0	33.5	17.0	15.0	8.7	21.3	12.6	-0.6	11.0	13.5	30.0	4.8	287.0	200.0	87.0	44.0	22.0	Sm		19.20	2.00	2.49	2.12
05.août	F		W4x	x		RUS	Fil	Fil	Al W1	Emp	4	159.2	21.0	35.7	56.5	43.3	14.7	35.5	17.3	15.1	9.1	24.4	15.3	1.6	11.0	13.0	30.0	3.8	287.0	200.0	87.0	44.0	22.0	Sm		18.80	2.20	2.49	2.12
05.août	F		W4x	x		RUS	Fil	Fil	Al W1	Emp	Average	159.0	20.0	31.9	54.3	41.2	11.9	34.3	16.9	15.1	8.9	23.0	14.1	0.9	10.8	13.4	30.0	5.0	287.0	200.0	87.0	44.0	22.0	Sm	0.0	19.03	1.83	2.49	2.12
05.août	F		W4x	x		SUI	Fil	Fil	Al 3	C2	1	159.0	17.0	34.0	56.5	38.0	17.0	39.5	16.9	15.9	8.9	26.3	17.4	6.5	11.0	14.0	26.5	6.5	289.5	202.0	87.5	44.0	21.5	BB		20.00	1.00	2.52	2.13
05.août	F		W4x	x		SUI	Fil	Fil	Al 3	C2	2	158.7	15.0	35.5	58.0	37.0	20.5	43.0	17.0	15.5	8.8	24.0	15.2	4.6	10.5	14.0	26.5	7.6	289.5	202.0	87.5	44.0	21.5	BB		20.30	1.50	2.52	2.13

												1 General Information → 2 Manufacturer's Information → 3 Span and Arc position → 4 Relative Height Data → 5 Splay → 6 Oar data → 7 Gearing																												
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
05.août	F	W4x	x			SUI	Fil	Fil	Al 3	C2	3	158.7		18.0	30.5	52.5	38.9	12.5	34.5	16.9	15.8	8.9	25.5	16.6	5.3	11.0	13.0	27.0	4.2	289.5	202.0	87.5	44.0	21.5	BB		20.30	1.10	2.52	2.13
05.août	F	W4x	x			SUI	Fil	Fil	Al 3	C2	4	158.8		17.5	34.5	56.5	38.5	17.0	39.0	17.0	15.4	8.9	24.0	15.1	4.1	12.0	14.0	26.5	4.3	289.5	202.0	87.5	44.0	21.5	BB		20.20	1.60	2.52	2.13
05.août	F	W4x	x			SUI	Fil	Fil	Al 3	C2	Average	158.8		16.9	33.6	55.9	38.1	16.8	39.0	17.0	15.7	8.9	25.0	16.1	5.1	11.1	13.8	26.6	5.7	289.5	202.0	87.5	44.0	21.5	BB	0.0	20.20	1.30	2.52	2.13
05.août	F	W4x	x			USA	Fil	Fil	CF W1	Cro	1	159.1		22.5	30.0	52.0	42.0	7.5	29.5	18.7	17.5	8.7	26.0	17.3	4.8	11.5	14.0	28.0	5.1	287.0	198.0	89.0	44.0	22.0	Sli		22.90	1.20	2.46	2.05
05.août	F	W4x	x			USA	Fil	Fil	CF W1	Cro	2	158.9		21.5	35.0	58.0	42.2	13.5	36.5	19.0	17.4	8.8	25.0	16.2	3.7	10.5	13.5	28.0	6.1	287.0	198.0	89.0	44.0	22.0	Sli		23.10	1.60	2.47	2.05
05.août	F	W4x	x			USA	Fil	Fil	CF W1	Cro	3	159.5		21.5	33.5	57.0	40.2	12.0	35.5	19.4	17.7	8.8	24.4	15.6	3.5	11.0	13.5	28.3	5.1	287.0	198.0	89.0	44.0	22.0	Sli		22.50	1.70	2.46	2.05
05.août	F	W4x	x			USA	Fil	Fil	CF W1	Cro	4	159.1		18.0	38.0	60.0	41.8	20.0	42.0	17.5	16.7	8.7	25.0	16.3	3.6	11.0	13.5	28.5	5.0	287.0	198.0	89.0	44.0	22.0	Sli		22.90	0.80	2.46	2.05
05.août	F	W4x	x			USA	Fil	Fil	CF W1	Cro	Average	159.2		20.9	34.1	56.8	41.6	13.3	35.9	18.7	17.3	8.8	25.1	16.4	3.9	11.0	13.6	28.2	5.3	287.0	198.0	89.0	44.0	22.0	Sli	0.0	22.85	1.33	2.46	2.05
Average for class W4x												158.4 ##		17.9	33.1	55.1	42.3	15.2	37.2	17.4	16.3	9.2	25.4	15.8	3.3	10.8	13.8	28.5	6.0	287.7	199.9	87.8	44.5	21.8			21.19	1.19	2.50	2.10
Standard deviation W4x												0.9 ##		3.0	3.5	3.3	2.3	3.8	3.3	1.0	1.1	2.0	2.2	1.5	1.5	1.0	0.6	1.6	2.1	1.1	1.0	0.7	0.8	0.3			1.28	0.59	0.02	0.02
% standard deviation W4x												0.5%		17.1%	10.7%	6.0%	5.3%	25.0%	8.8%	5.5%	6.6%	21.9%	8.6%	9.6%	43.5%	9.0%	4.1%	5.5%	35.4%	0.4%	0.5%	0.8%	1.9%	1.2%			0.06	0.50	0.01	0.01
Difference M-W /-W 4x												- 0.52		- 0.23	- 1.08	0.36	0.54	- 1.08	0.06	0.78	0.34	0.64	2.61	1.79	0.45	0.08	0.00	2.73	- 0.59	1.87	2.94	- 1.05	1.54	- 0.27			-1.65	0.37	0.03	-0.05
% difference /-W 4x												-0.3%		-1.3%	-2.9%	0.6%	1.3%	-5.7%	0.1%	4.3%	2.0%	6.9%	9.4%	9.9%	11.0%	0.8%	0.0%	8.7%	-13.3%	0.6%	1.5%	-1.2%	3.4%	-1.3%			-0.08	0.31	0.01	-0.02
Average for class 4x												156.6		17.6	35.0	57.6	41.8	17.3	39.7	17.7	16.5	9.2	26.4	17.0	3.8	10.8	13.5	29.8	5.0	285.0	198.2	86.9	44.7	21.5			20.97	1.17	2.47	2.07
Standard deviation 4x												17.3		3.7	5.3	7.5	5.2	4.6	6.7	2.2	2.1	2.0	3.8	2.8	1.8	1.6	1.7	3.7	2.5	31.3	21.8	9.5	5.2	2.4			2.85	0.70	0.29	0.23
% standard deviation 4x												11.0%		20.9%	15.1%	12.9%	12.3%	26.6%	16.8%	12.3%	12.7%	21.8%	14.5%	16.4%	47.0%	14.4%	12.7%	12.5%	50.8%	11.0%	11.0%	11.0%	11.6%	11.0%			0.14	0.60	0.12	0.11

Makers	Boat Makes	%	Rigger makes	%
Emp	8.75	22%	8.75	23%
Fil	27.25	68%	24.75	64%
Win	0.00	0%	0.00	0%
Syk	2.50	6%	2.50	6%
Sch	1.50	4%	1.50	4%
Hud	0.00	0%	1.25	3%
CD	0.00	0%	0.00	
Total	40	100%	38.75	100%
Check		100%		100%

	Blade maker	
C2	28	66%
Cro	12	28%
Emp	1	3%
Dre	-	0%
	1	3%
	-	0%
	41.5	100%
Check		100%

	Rigger types	
Al W1	19	59%
CF W1	3	10%
CF 2	1	4%
Al 3	7	23%
AL 2	1	3%
		0%
	31.25	100%
		100%

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)	Notes
05.août		F	M4x	1	06:01.6	ROU	Fil	Fil	Al W1	Cro	Average	158.5		16.8	37.0	61.0	42.3	20.2	44.3	18.4	17.1	8.0	26.4	18.4	3.8	11.3	12.8	32.4	2.6	291.0	202.5	88.5	44.0	22.0	Sli		22.5	1.3	2.53	2.11	5.53	
05.août		F	M4x	2	06:03.2	ITA	Fil	Fil	CF 2	C2	Average	159.5		17.5	36.2	61.0	41.9	14.0	32.6	18.0	18.3	9.8	28.1	18.3	4.6	11.3	12.8	30.8	2.6	288.4	199.4	89.0	45.5	21.5	S2		22.5	-0.3	2.48	2.05	5.51	
02.août		F	W4x	3	06:04.0	GER	did not measure																																			5.50	
05.août		F	M4x	4	06:08.0	NZL	Fil	Fil	CF W1	Cro	Average	157.9		14.1	34.9	58.9	42.5	20.8	44.8	19.3	18.7	8.6	25.4	16.9	1.9	10.1	13.1	33.3	5.2	289.0	200.0	89.0	44.0	22.0	Sli		24.1	0.6	2.51	2.07	5.44	
05.août		P	M4x	5	06:09.9	NED	Emp	Emp	Al W1		Average	159.5		17.0	37.9	61.0	42.1	20.9	44.1	17.9	16.8	7.6	25.0	17.4	4.0	11.0	13.5	30.0	4.7									1.1			5.41	
03.août		F	M4x	6	06:09.9	HUN	Fil	Fil	Al 3	C2	Average	157.6		12.1	33.1	55.5	38.3	21.0	43.4	19.1	17.4	8.7	27.2	18.5	6.0	11.4	13.1	30.6	3.3	283.0	196.0	87.5	46.0	23.0	F2S	V	21.4	1.8	2.46	2.05	5.41	
01.août		F	M4x	7	06:09.9	GBR	Emp	Emp	Al 3	C2	Average	158.6		18.4	33.8	55.5	42.2	15.4	37.1	16.7	16.2	10.9	27.6	16.7	3.4	10.2	14.0	29.8	7.2	287.0	199.5	87.5	45.5	21.5	S2		20.4	0.6	2.49	2.09	5.41	
31.juil		F	M4x	8	06:11.9	AUS	Syk	Syk	Al W1	Cro	Average	158.5		14.2	38.1	59.2	41.7	24.0	45.0	19.1	18.0	7.2				10.9	12.5	31.3	3.0	289.9	201.3	88.5	43.0	22.0	Sli		22.5	1.2	2.51	2.10	5.38	
05.août		F	M4x	9	06:12.4	CZE	Fil	Fil	Al 3	C2	Average	158.3		15.4	35.1	59.5	43.2	19.8	44.1	17.8	16.5	10.8	28.9	18.1	3.5	9.9	13.1	32.0	5.8	288.0	200.0	88.0	46.0	21.5	S2		21.8	1.2	2.50	2.08	5.37	
31.juil		P	M4x	10	06:13.4	USA	Fil	Fil	Al 3	C2	Average	159.1		20.4	37.0	59.3	41.5	16.5	38.9	18.1	17.3	8.0				10.1	13.1	32.5	5.3	288.7	200.0	88.7	55.0	21.5	S2		22.4	0.9	2.49	2.11	5.36	
05.août		F	M4x	11	06:15.3	CAN	Hud	Hud	Al W	C2	Average	159.0		24.8	42.3	67.1	40.0	17.5	42.3	18.8	18.4	6.0	26.5	20.5	6.6	13.1	17.0	32.4	6.9	289.0	203.0	86.0	46.0	21.5	S2		17.0	0.8	2.53	2.17	5.33	
05.août		F	M4x	12	06:18.5	AUT	Sch	Sch	Al W1	C2	Average	159.0		18.9	36.6	59.0	43.1	17.8	40.1	18.7	17.8	9.9	28.6	18.7	5.2	11.8	15.0	29.8	6.2	290.5	201.5	89.0	46.0	21.5	S2	V	23.0	0.8	2.51	2.08	5.28	
05.août		F	M4x	13	06:17.0	LAT	Fil	Fil	Al 3	C2	Average	159.4		17.3	38.6	62.4	41.2	21.4	45.1	19.2	17.2	10.3	27.8	17.5	3.9	11.0	13.6	31.0	4.9	291.0	205.5	85.5	46.0	21.5	S2	V	15.6	2.0	2.55	2.21	5.30	
05.août		F	M4x	14	06:19.9	SRB	Fil	Fil	Al 3	Cro	Average	159.1		18.2	38.8	63.5	43.1	20.6	45.3	17.6	17.0	12.6	30.8	18.2	3.5	11.6	13.6	32.3	3.6	287.8	198.7	89.1	44.0	22.0	Sli		23.2	0.6	2.47	2.05	5.26	Wide carbon fi
03.août		F	M4x	15	06:21.2	NOR	Fil	Fil	Al 3	C2	Average	158.9		15.4	37.0	61.3	42.0	21.7	45.9	19.6	17.3	10.1	30.4	20.3	6.3	10.6	12.8	31.5	3.9	289.6	201.1	88.5	44.5	21.5	BB	V	22.1	2.3	2.51	2.09	5.25	
05.août		F	M4x	16	06:22.0	CRO	Emp	Emp	Al 3	C2	Average	157.5		16.5	36.3	59.0	43.7	19.8	44.2	17.7	16.0	10.2	28.6	18.4	4.7	11.4	13.4	29.8	3.2	288.5	201.5	87.0	46.0	21.5	S2		20.5	1.8	2.53	2.13	5.24	
05.août		F	M4x	17	06:22.3	DEN	Emp	Emp	Al 3	C2	Average	157.5		21.7	39.6	62.3	44.1	17.9	40.5	19.3	17.5	11.3	28.4	17.1	2.6	11.4	13.4	31.3	3.6	290.0	202.5	87.5	44.0	21.5	BB		21.5	1.8	2.55	2.14	5.23	
05.août		F	M4x	18	06:24.0	FRA	Fil	Fil	Al 3	C2	Average	158.3		15.4	35.1	59.5	43.2	19.8	44.1	17.8	16.5	10.8	28.9	18.1	3.5	9.9	13.1	32.0	5.8	288.0	200.0	88.0	46.0	21.5	S2		21.8	1.2	1.25	2.08	5.21	
05.août		F	M4x	19	06:18.4	RUS	Fil	Fil	CF W1	C2	Average	158.7		18.8	37.6	60.9	43.1	18.8	42.1	19.0	17.6	9.1	27.7	18.6	4.4	10.6	13.5	31.1	5.3	288.0	200.0	88.0	45.5	21.5	S2		21.3	1.4	2.50	2.09	5.29	
03.août		F	M4x	20	06:18.9	POL	Emp	Emp	Al 3	C2	Average	158.6		15.4	34.8	57.9	46.4	19.4	43.7	18.3	16.0	10.1	29.3	19.2	4.4	12.9	12.8	30.9	- 0.2	290.0	200.0	87.5	45.5	22.5	S2	V	21.4	2.2	2.52	2.11	5.24	
03.août		F	M4x	21	06:21.8	JPN	Fil	Fil	Al W1	C2	Average	158.0		20.8	35.5	59.3	42.2	14.8	38.5	16.7	14.8	8.8	22.1	13.3	- 0.3	12.0	13.8	30.3	7.1	287.8	200.4	87.4	44.5	21.5	S2		20.8	2.0	2.51	2.11	5.24	
Average for class M4x												158.6		17.4	36.8	60.2	42.4	19.1	42.2	18.4	17.1	9.4	27.6	18.0	4.0	11.0	13.5	31.2	4.5	288.7	200.8	87.9	45.6	21.7			21.36	1.25	2.44	2.10	5.34	
Standard deviation M4x												0.6		3.0	2.2	2.6	1.6	2.5	3.4	0.8	0.9	1.6	2.1	1.6	1.6	0.9	1.0	1.0	1.9	1.8	2.0	1.0	2.5	0.4			2.02	0.68	0.29	0.05	0.10	
% standard deviation												0.4%		17.0%	5.9%	4.3%	3.8%	13.2%	8.0%	4.5%	5.5%	16.9%	7.5%	8.7%	40.3%	8.3%	7.4%	3.3%	41.3%	0.6%	1.0%	1.1%	5.4%	1.9%			0.1	0.5	0.12	0.02	1.8%	
02.août		F	W4x	1	06:31.1	GER	Emp	Emp	Al W1	C2	Average	158.3		16.4	32.0	54.1	45.0	15.6	37.7	17.1	16.6	7.9	23.7	15.9	2.0	10.0	14.6	29.5	9.0	285.5	198.5	87.0	46.0	21.5	S2		19.7	0.5	2.48	2.09	5.11	
			W4x	2	06:34.5	NED	did not measure																																			5.07	
05.août		F	W4x	3	06:35.2	ROU	Fil	Fil	Al W1	Cro	Average	158.1		18.5	34.4	56.8	45.7	15.9	38.3	17.2	16.4	11.6	29.2	17.6	3.3	10.0	14.0	30.0	7.6	289.0	200.5	88.5	44.0	22.0	Sli		22.9	0.9	2.51	2.09	5.06	
05.août		F	W4x	4	06:35.8	USA	Fil	Fil	CF W1	Cro	Average	159.2		20.9	34.1	56.8	41.6	13.3	35.9	18.7	17.3	8.8	25.1	16.4	3.9	11.0	13.6	28.2	5.3	287.0	198.0	89.0	44.0	22.0	Sli		22.9	1.3	2.46	2.05	5.05	
05.août		F	W4x	5	06:36.8	BLR	Emp	Emp	Al 3	C2	Average	159.9		21.8	34.1	56.3	41.0	12.3	34.4	18.3	17.4	11.4	26.9	15.5	3.2	12.5	14.1	27.9	3.3	287.5	199.5	88.5	44.0	22.0	Sli		21.1	0.9	2.47	2.09	5.04	
05.août		F	W4x	6	06:41.5	ITA	Fil	Fil	Al W1	Cro	Average	159.3		18.4	34.2	55.5	43.1	15.8	37.1	16.9	16.2	9.1	25.9	16.8	4.2	11.0	13.5	27.8	5.2	288.0	200.0	88.0	43.5	22.0	Sli		20.7	0.6	2.49	2.10	4.98	
			W4x	7	06:42.5	GBR	did not measure																																			4.97	
05.août		F	W4x	8	06:46.0	SUI	Fil	Fil	Al 3	C2	Average	158.8		16.9	33.6	55.9	38.1	16.8	39.0	17.0	15.7	8.9	25.0	16.1	5.1	11.1	13.8	26.6	5.7	289.5	202.0	87.5	44.0	21.5	BB		20.2	1.3	2.52	2.13	4.93	
			W4x	9	06:47.3	NZL	did not measure																																			4.91	
31.juil		P	W4x	10	06:48.9	AUS	Syk	Syk	Al W1	Cro	Average	157.5		16.4	37.6	58.1	41.4	21.2	41.8	18.7	17.8	5.5				10.5	13.0	29.0	4.9	287.0	199.0	88.0	44.0	22.0	Sli		22.5	0.9	2.50	2.08	4.89	
01.août		P	W4x	11	06:51.7	JPN	Fil	Fil		C2	Average	158.5	-	20.6	36.6	58.4		12.0	34.0	16.9	14.7	8.5	22.0	15.8	3.3	10.8	13.9	29.3	3.1	288.0	200.0	88.0	45.5	21.5	S2						4.86	
05.août		F	W4x	12	06:55.4	RUS	Fil	Fil	Al W1	Emp	Average	159.0		20.6	31.9	54.3	41.2	11.9	34.3	16.9	15.1	8.9	23.0	14.1	0.9	10.8	13.4	30.0	5.0	287.0	200.0	87.0	44.0	22.0	Sm		19.0	1.8	2.49	2.12	4.81	
05.août		F	W4x	13	06:53.2	DEN	Fil	Fil	Al 3	C2	Average	157.4		13.3	33.0	53.4	44.7	19.8	40.1	18.1	16.5	12.4	26.6	14.2	2.0	11.3	14.1	26.0	6.4	288.0	201.0	87.0	44.0	21.5	BB		20.7	1.6	2.53	2.13	4.84	
31.juil		P	W4x	14	06:56.4	FRA	Fil	Fil		C2	Average	158.5		18.5	37.9	51.3	42.6	9.4	32.9	18.0	16.8	8.7				10.0	13.3	31.0	6.0	289.0	200.5	88.5	45.0	21.5	Sli		22.6	1.2	2.51	2.08	4.80	
05.août		F	W4x	15	06:58.5	ARG	Fil	CD	Al 2	Cro	Average	158.3		13.6	28.1	50.5	40.9	14.5	36.9	17.2	15.8	11.4	27.8	16.4	4.3	11.6	13.8	27.6	4.5	287.0	199.0	88.0	44.0	22.0	Sli		21.7	0.4	2.49	2.09	4.78	
05.août		F	W4x	16	07:05.9	KOR	Fil	Fil	Al W1	C2	Average	157.0		17.3	32.6	55.0	43.0	15.4	37.8	15.8	15.1	6.8	24.0	17.2	4.4	9.9	14.3	28.3	9.0	287.0	200.5	86.5	46.0	21.5	S2		20.0	0.8	2.53	2.13	4.70	
Average for class W4x												158.4		17.9	33.1	55.1	42.3	14.9	36.9	17.4	16.3	9.2	25.4	16.0	3.3	10.8	13.8	28.5	5.8	287.7	199.9	87.8	44.5	21.8			21.16	1.11	2.50	2.10	4.93	
Standard deviation W4x												0.8		2.6	2.8	2.4	2.1	3.2	2.6	0.8	1.0	2.0	2.1	1.1	1.3	0.8	0.4	1.4	1.9	1.1	1.1	0.8	0.9	0.3			1.33	0.40	0.02	0.03	0.12	
% standard deviation W4x												0.5%		14.7%	8.4%	4.3%	5.0%	21.8%	7.0%	4.9%	5.9%	21.8%	8.5%	6.9%	37.6%	7.0%	3.2%	5.0%	32.2%	0.4%	0.5%	0.9%	1.9%	1.2%			0.06	0.36	0.01	0.01	0.02	
Difference M vs W 2-												0.1		-0.4	3.7	5.1	0.0	4.2	5.3	0.9	0.8	0.2	2.3	2.0	0.7	0.2	-0.3	2.7	-1.3	1.0	0.9	0.1	1.2	0.0			0.2	0.1	-0.06	0.00	0.42	

4x

Name	Boat Maker	Rigger Maker	Name	Rigger type	Name	Blade Maker	Name	Blade Shape
Emp	7	7	Al W1	14	C2	21	BB	####
Fil	22	21	Al W	1	Cro	10	S2	####
Win			CF W		Emp	1	F2S	1

Syk	2	2	CF W1	3	Dre	-	Apex	
Sch	1	1	CF 2	1	Bra	-	ApexR	
Hud	1	1	Al 3	12	Bra/C2	-	Sli	10
Swi			Al 2	1			Cle	
CD		1	W(Bov				DSn	
Ves			W(Bov				Sm	1
							Bra/F2S	
missing	4	4	missing	5	Missing	5	Missing	5
Total	37	37	Total	37	Total	37	Total	#REF!
Check	37	37	Check		37	Check	37	Check	37

1 General Information							2 Manufacturer's Information				3 Span and Arc position									4 Relative Height Data						5 Splay				6 Oar data									7 Gearing	
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
05.août		F	M2-			BRA	Fil	Fil	Al 3	C2	1	85.0	18.5	42.0	66.5		46.8			16.5		8.0	24.5	16.5	1.0	11.0	14.0	32.0	5.4	374.5	259.5	115.0	54.0	24.5	S2	V	32.0	16.5	3.03	2.26
05.août		F	M2-			BRA	Fil	Fil	Al 3	C2	2	85.0	19.5	38.5	63.0		45.9				16.9	8.0	24.5	16.5	1.2	10.0	14.0	32.0	7.2	374.5	259.5	115.0	54.0	24.5	S2	V	32.0	-16.9	3.03	2.26
05.août		F	M2-			BRA	Fil	Fil	Al 3	C2	Average	85.0	19.0	40.3	64.8		46.4			16.5	16.9	8.0	24.5	16.5	1.1	10.5	14.0	32.0	6.3	374.5	259.5	115.0	54.0	24.5	S2	V	32.0	-0.4	3.03	2.26
02.août		F	M2-			BUL	Fil	Fil	Al 3	C2	1	85.0	7.5	32.0	54.5		43.0			18.2		8.6	27.0	18.4	3.9	10.0	12.5	32.0	4.5	373.5	257.0	116.5	52.0	25.0	BB		33.5	18.2	3.00	2.21
02.août		F	M2-			BUL	Fil	Fil	Al 3	C2	2	85.8	6.6	27.8	52.6		40.6				17.4	8.6	26.5	17.9	4.0	12.0	13.0	32.0	1.8	373.5	257.0	116.5	52.0	25.0	BB		32.7	-17.4	2.97	2.21
02.août		F	M2-			BUL	Fil	Fil	Al 3	C2	Average	85.4	7.1	29.9	53.6		41.8			18.2	17.4	8.6	26.8	18.2	3.9	11.0	12.8	32.0	3.1	373.5	257.0	116.5	52.0	25.0	BB		33.1	0.8	2.99	2.21
05.août		P	M2-			CHI	Fil	Fil	Al W1		1	86.5	12.5	34.0	56.0		40.1			15.5		6.1	21.0	14.9	2.9	11.0	12.5	28.0	3.1											
05.août		P	M2-			CHI	Fil	Fil	Al W1		2	86.7	16.0	35.0	57.0		38.8				15.8	6.3	22.4	16.1	4.8	11.0	12.5	27.0	3.2											
05.août		P	M2-			CHI	Fil	Fil	Al W1		Average	86.6	14.3	34.5	56.5		39.5			15.5	15.8	6.2	21.7	15.5	3.9	11.0	12.5	27.5	3.1											
05.août		F	M2-			ESP	Fil	Fil	Al W1	C2	1	86.1	18.5	31.0	55.5		40.3			16.2		5.8	23.5	17.7	4.6	10.0	14.5	30.5	8.5	373.5	257.5	116.0	54.0	25.5	S2		31.9	16.2	2.97	2.22
05.août		F	M2-			ESP	Fil	Fil	Al W1	C2	2	86.2	18.3	30.5	53.5		42.5				16.4	6.0	24.0	18.0	4.3	11.0	13.5	30.5	4.7	373.5	257.5	116.0	54.0	25.5	S2		31.8	-16.4	2.96	2.22
05.août		F	M2-			ESP	Fil	Fil	Al W1	C2	Average	86.2	18.4	30.8	54.5		41.4			16.2	16.4	5.9	23.8	17.9	4.4	10.5	14.0	30.5	6.6	373.5	257.5	116.0	54.0	25.5	S2		31.9	-0.2	2.97	2.22
05.août		F	M2-			EST	Fil	Fil	Al 3	C2	1	85.5	10.7	37.5	63.0		45.0			17.5		7.8	26.0	18.2	2.7	10.0	13.0	33.0	5.2	375.5	258.5	117.0	54.5	25.0	S2	V	33.5	17.5	3.00	2.20
05.août		F	M2-			EST	Fil	Fil	Al 3	C2	2	85.0	13.0	34.0	57.5		46.0				17.0	9.5	26.5	17.0	1.2	9.0	13.0	33.0	6.9	375.0	258.0	117.0	54.5	25.0	S2	V	34.0	-17.0	3.01	2.20
05.août		F	M2-			EST	Fil	Fil	Al 3	C2	Average	85.3	11.9	35.8	60.3		45.5			17.5	17.0	8.7	26.3	17.6	1.9	9.5	13.0	33.0	6.1	375.3	258.3	117.0	54.5	25.0	S2	V	33.8	0.5	3.01	2.20
02.août	P183	F	M2-			FRA	Fil	Fil	Al W1	C2	1	86.1	16.0	41.5	63.6		42.0				16.5	6.8	24.6	17.8	4.0	11.0	12.5	31.0	2.8	374.0	258.0	116.0	54.0	25.5	S2		31.9	-16.5	2.97	2.22
02.août	P183	F	M2-			FRA	Fil	Fil	Al W1	C2	2	86.1	15.2	37.5	61.0		40.0			15.1		6.2	24.1	17.9	5.3	12.0	13.0	29.5	1.9	373.5	257.0	116.5	54.0	25.5	S2		32.4	15.1	2.96	2.20
02.août	P183	F	M2-			FRA	Fil	Fil	Al W1	C2	Average	86.1	15.6	39.5	62.3		41.0			15.1	16.5	6.5	24.4	17.9	4.6	11.5	12.8	30.3	2.4	373.8	257.5	116.3	54.0	25.5	S2		32.2	-1.4	2.97	2.21
02.août		F	M2-			GBR	Emp	Emp	Al 3	C2	1	86.3	17.0	37.0	61.4		42.8				17.2	9.2	27.4	18.2	3.7	10.0	12.0	32.0	3.6	374.0	258.0	116.0	54.0	25.5	S2		31.7	-17.2	2.97	2.22
02.août		F	M2-			GBR	Emp	Emp	Al 3	C2	2	86.2	13.5	37.0	60.5		42.6			17.5		8.5	27.5	19.1	4.7	9.5	13.0	32.0	6.3	374.0	258.6	116.0	54.0	25.5	S2		31.8	17.5	2.98	2.23
02.août		F	M2-			GBR	Emp	Emp	Al 3	C2	Average	86.3	15.3	37.0	61.0		42.7			17.5	17.2	8.9	27.5	18.7	4.2	9.8	12.5	32.0	4.9	374.3	258.3	116.0	54.0	25.5	S2		31.8	0.3	2.97	2.23
05.août		F	M2-			GRE	Fil	Fil	Al W1	C2	1	87.5	20.7	40.0	67.0		40.5			16.4		5.3	22.2	16.9	2.9	9.5	14.5	32.5	8.8	376.0	258.0	118.0	54.0	25.5	S2		32.5	16.4	2.93	2.18
05.août		F	M2-			GRE	Fil	Fil	Al W1	C2	2	87.0	17.0	36.0	60.5		39.8				17.6	5.5	23.0	17.5	3.9	10.0	14.0	32.0	7.2	376.0	258.0	118.0	54.0	25.5	S2		33.0	-17.6	2.94	2.18
05.août		F	M2-			GRE	Fil	Fil	Al W1	C2	Average	87.3	18.9	38.0	63.8		40.2			16.4	17.6	5.4	22.6	17.2	3.4	9.8	14.3	32.3	8.0	376.0	258.0	118.0	54.0	25.5	S2		32.8	-1.2	2.93	2.18
05.août		F	M2-			HUN	Sch	Sch	Al 3	C2	1	86.5	19.5	42.0	64.5		43.5				17.6	9.0	25.3	16.3	3.0	12.0	15.0	29.0	5.9	371.5	255.5	116.0	54.0	25.5	S2		31.5	-17.6	2.93	2.20
05.août		F	M2-			HUN	Sch	Sch	Al 3	C2	2	87.0	17.7	34.5	56.0		44.0			16.0		8.5	24.5	16.0	2.1	13.0	15.0	30.0	3.8	373.0	257.5	115.5	54.0	25.5	S2		30.5	16.0	2.94	2.23
05.août		F	M2-			HUN	Sch	Sch	Al 3	C2	Average	86.8	18.6	38.3	60.3		43.8			16.0	17.6	8.8	24.9	16.2	2.6	12.5	15.0	29.5	4.9	372.3	256.5	115.8	54.0	25.5	S2		31.0	-1.6	2.93	2.21
02.août		F	M2-			NOR	Fil	Fil	Al 3	Cro	1	89.5	12.5	34.8	57.5		45.2			17.5		9.0	26.0	15.9	1.7	9.4	14.8	30.1	10.3	374.0	256.5	117.5	55.0	25.0	Sli		30.0	17.5	2.84	2.17
02.août		F	M2-			NOR	Fil	Fil	Al 3	Cro	2	89.1	8.5	41.0	63.5		46.9				18.0	9.2	25.3	16.8	2.0	10.2	14.1	30.4	7.4	374.0	256.5	117.5	55.0	25.0	Sli		30.4	-18.0	2.86	2.17
02.août		F	M2-			NOR	Fil	Fil	Al 3	Cro	Average	89.3	10.5	37.9	60.5		46.1			17.5	18.0	9.1	25.7	16.4	1.9	9.8	14.5	30.3	8.8	374.0	256.5	117.5	55.0	25.0	Sli		30.2	-0.5	2.85	2.17
03.août		F	M2-			PAR	Win	Win	Al W1	C2	1	86.6	11.0	37.0	61.0		42.6			16.0		6.0	24.5	18.5	4.3	13.0	15.1	31.5	3.7	375.0	258.0	117.0	55.0	25.0	S2		32.4	16.0	2.96	2.20
03.août		F	M2-			PAR	Win	Win	Al W1	C2	2	87.1	12.3	35.5	56.5		43.3				18.1	6.0	24.0	18.0	3.9	10.0	16.0	31.0	11.1	375.0	258.0	117.0	55.0	25.0	S2		31.9	-18.1	2.94	2.20
03.août		F	M2-			PAR	Win	Win	Al W1	C2	Average	86.9	11.7	36.3	58.8		43.0			16.0	18.1	6.0	24.3	18.3	4.1	11.5	15.5	31.3	7.4	375.0	258.0	117.0	55.0	25.0	S2		32.2	-2.1	2.95	2.20
05.août		F	M2-			ROU	Fil	Fil	Al W1	Cro	1	86.9	13.5	39.0	63.0		41.1			16.3		5.5	33.0	27.5	15.2	11.0	12.5	28.0	3.1	376.0	259.1	116.9	55.5	25.5	Sli		32.0	16.3	2.96	2.21
05.août		F	M2-			ROU	Fil	Fil	Al W1	Cro	2	86.7	16.0	40.0	62.5		39.9				16.5	5.9	33.5	27.6	14.6	12.5	13.5	30.5	1.9	376.0	259.1	116.9	55.5	25.5	Sli		32.2	-16.5	2.97	2.21
05.août		F	M2-			ROU	Fil	Fil	Al W1	Cro	Average	86.8	14.8	39.5	62.8		40.5			16.3	16.5	5.7	33.3	27.6	14.9	11.8	13.0	29.3	2.5	376.0	259.1	116.9	55.5	25.5	Sli		32.1	-0.2	2.96	2.21
31.juil		F	M2-	-		RSA	Fil	Fil	Al W1	C2	1	85.5	25.4	37.2	65.0		42.0			18.8		5.2	25.5	20.3	5.4	11.0	12.5	33.5	2.6	373.5	257.0	116.6	53.0	25.0	S2		33.1	18.8	2.98	2.21
31.juil		F	M2-	-		RSA	Fil	Fil	Al W1	C2	2	85.0	23.5	37.0	62.0		43.2				17.9	5.2	24.7	17.7	4.2	11.0	12.9	29.5	4.3	373.5	257.0	116.6	53.0	25.0	S2		33.6	-17.9	3.00	2.21
31.juil		F	M2-	-		RSA	Fil	Fil	Al W1	C2	Average	85.3	24.5	37.1	63.5		42.6			18.8	17.9	5.2	24.2	19.0	4.8	11.0	12.9	31.5	3.4	373.5	257.0	116.6	53.0	25.0	S2		33.3	0.9	2.99	2.21
03.août		F	M2-			SLO	Emp	Emp	Al 2	C2	1	85.9	11.5	32.0	55.5		46.9			16.2		9.5	27.2	17.7	2.9	11.2	12.8	30.5	3.0	373.0	257.3	115.7	55.0	25.0	BB		31.8	16.2	2.97	2.22
03.août		F	M2-			SLO	Emp	Emp	Al 2	C2	2	85.9	13.9	34.1	55.5		44.2				15.7	9.8	26.6	16.8	3.6	10.5	13.0	28.5	5.0	373.0	257.3	115.7	55.0	25.0	BB		31.8	-15.7	2.97	2.22
03.août		F	M2-			SLO	Emp	Emp	Al 2	C2	Average	85.9	12.7	33.1	55.5		45.6			16.2	15.7	9.7	26.9	17.3	3.2	10.9	12.9	29.5	4.0	373.0	257.3	115.7	55.0	25.0	BB		31.8	0.5	2.97	2.22

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
03.août		F	M2-			USA	Win	Win	Al W1	C2	1	85.9	17.3	36.2	58.8	44.5			16.9		6.6	23.8	17.2	3.2	13.5	16.5	30.0	5.7	365.5	249.5	116.0	54.5	26.5	F2S	V	32.1	16.9	2.88	2.14
03.août		F	M2-			USA	Win	Win	Al W1	C2	2	85.8	20.3	39.5	62.5	42.0				17.2	6.7	23.5	16.8	3.6	13.0	14.5	29.5	2.9	365.5	249.5	116.0	54.5	26.5	F2S	V	32.2	-17.2	2.88	2.14
03.août		F	M2-			USA	Win	Win	Al W1	C2	Average	85.9	18.8	37.9	60.7	43.3			16.9	17.2	6.7	23.7	17.0	3.4	13.3	15.5	29.8	4.3	365.5	249.5	116.0	54.5	26.5	F2S	V	32.2	-0.3	2.88	2.14
02.août	P174	F	W2-			FRA	Fil	Fil	Al W1	C2	1	86.1	14.2	34.6	54.9	41.1			14.4		6.1	22.9	16.8	4.1	10.0	14.0	29.0	7.9	375.0	260.0	115.0	52.5	25.0	BB		30.9	14.4	3.00	2.27
02.août	P174	F	W2-			FRA	Fil	Fil	Al W1	C2	2	86.1	21.3	38.0	61.5	43.2				15.5	6.1	21.9	15.8	2.8	11.0	14.0	28.5	6.0	375.0	260.0	115.0	52.5	25.0	BB		30.9	-15.5	3.00	2.27
02.août	P174	F	W2-			FRA	Fil	Fil	Al W1	C2	Average	86.1	17.8	36.3	58.2	42.2			14.4	15.5	6.1	22.4	16.3	3.5	10.5	14.0	28.8	7.0	375.0	260.0	115.0	52.5	25.0	BB		30.9	-1.1	3.00	2.27
01.août		F	W2-			GBR	Emp	Emp	Al 3	C2	1	86.2	17.5	48.2	62.2	43.2			17.4		8.5	24.7	16.2	1.8	9.5	12.5	31.5	5.5	374.0	258.0	116.0	53.0	25.5	S2		31.8	-17.4	2.97	2.23
01.août		F	W2-			GBR	Emp	Emp	Al 3	C2	2	86.3	13.9	38.6	61.5	43.0			17.0		8.5	27.5	19.0	4.2	11.0	12.5	32.5	1.8	374.0	258.0	116.0	53.0	25.5	S2		31.7	17.0	2.97	2.23
01.août		F	W2-			GBR	Emp	Emp	Al 3	C2	Average	86.3	15.7	43.4	61.9	43.1			17.0	17.4	8.5	26.1	17.6	3.0	10.3	12.3	32.0	3.6	374.0	258.0	116.0	53.0	25.5	S2		31.8	-0.4	2.97	2.23
01.août		F	W2-			GER	Emp	Emp	Al W1	C2	1	85.0	20.5	36.0	58.5	43.9				15.4	7.5	23.2	15.7		adjustable		29.0		373.0	257.0	116.0	52.0	25.0	BB		33.0	-15.4	3.00	2.22
01.août		F	W2-			GER	Emp	Emp	Al W1	C2	2	85.9	19.0	35.0	56.5	43.7			15.0		7.5	22.0	14.5		adjustable		30.0		373.0	257.0	116.0	52.0	25.0	BB		32.1	15.0	2.97	2.22
01.août		F	W2-			GER	Emp	Emp	Al W1	C2	Average	85.5	19.8	35.5	57.5	43.8			15.0	15.4	7.5	22.6	15.1		adjustable		29.5		373.0	257.0	116.0	52.0	25.0	BB		32.6	-0.4	3.0	2.22
05.août		F	W2-			GRE	Fil	Fil	Al W1	C2	1	86.0	20.5	42.0	64.5	38.5			16.7		4.6	19.5	14.9	3.5	10.0	14.0	27.5	8.3	372.0	255.0	117.0	52.0	25.0	S2		33.0	16.7	2.94	2.18
05.août		F	W2-			GRE	Fil	Fil	Al W1	C2	2	86.2	20.0	33.0	65.0	37.5				14.4	3.8	19.0	15.2	4.1	10.0	12.5	27.5	5.2	371.5	254.5	117.0	52.0	25.0	S2		32.8	-14.4	2.93	2.18
05.août		F	W2-			GRE	Fil	Fil	Al W1	C2	Average	86.1	20.3	37.5	64.8	38.0			16.7	14.4	4.2	19.3	15.1	3.8	10.0	13.3	27.5	6.8	371.8	254.8	117.0	52.0	25.0	S2		32.9	2.3	2.94	2.18
02.août		F	W2-			ITA	Fil	Fil	Al W1	Cro	1	86.0	15.0	31.5	51.5	43.1			16.2		5.5	22.2	16.7	4.0	8.5	13.0	28.0	9.2	371.7	256.2	115.5	55.0	25.5	Sli		31.5	16.2	2.96	2.21
02.août		F	W2-			ITA	Fil	Fil	Al W1	Cro	2	86.3	11.4	31.2	51.5	42.4				14.8	4.5	20.2	15.7	2.7	8.8	13.8	29.0	9.9	371.7	256.2	115.5	55.0	25.5	Sli		31.2	-14.8	2.95	2.21
02.août		F	W2-			ITA	Fil	Fil	Al W1	Cro	Average	86.2	13.2	31.4	51.5	42.8			16.2	14.8	5.0	21.2	16.2	3.3	8.7	13.4	28.5	9.6	371.7	256.2	115.5	55.0	25.5	Sli		31.4	1.4	3.0	2.21
02.août		F	W2-			NOR	Hud	Hud	Al W1	C2	1	87.4	24.0	41.1	62.0	46.5				15.5	2.8	18.0	15.2	1.6	12.2	16.4	28.2	8.5	367.5	250.3	117.2	54.5	24.5	S2		31.8	-15.5	2.84	2.12
02.août		F	W2-			NOR	Hud	Hud	Al W1	C2	2	87.4	26.0	44.0	64.0	43.5			15.2		2.5	20.2	17.7	4.8	10.2	15.2	28.2	10.2	368.0	250.9	117.1	54.5	24.5	S2		31.7	15.2	2.85	2.13
02.août		F	W2-			NOR	Hud	Hud	Al W1	C2	Average	87.4	25.0	42.6	63.0	45.0			15.2	15.5	2.7	19.1	16.5	3.2	11.2	15.8	28.2	9.4	367.8	250.6	117.2	54.5	24.5	S2		31.8	-0.3	2.84	2.13
03.août		F	W2-			ROU	Emp	Emp	Al 3	Cro	1	88.5	16.7	37.0	58.7	37.5				14.3	7.0	22.0	15.0	3.6	10.0	12.5	28.0	5.1	373.0	255.5	117.5	55.0	25.5	Sli		31.0	-14.3	2.86	2.16
03.août		F	W2-			ROU	Emp	Emp	Al 3	Cro	2	88.4	17.0	38.0	59.0	34.8			14.6		7.0	22.2	15.2	4.4	9.0	14.0	28.5	10.1	373.0	255.5	117.5	55.0	25.5	Sli		31.1	14.6	2.87	2.16
03.août		F	W2-			ROU	Emp	Emp	Al 3	Cro	Average	88.5	16.9	37.5	58.9	36.2			14.6	14.3	7.0	22.1	15.1	4.0	9.5	13.3	28.3	7.6	373.0	255.5	117.5	55.0	25.5	Sli		31.1	0.2	2.87	2.16
01.août		F	W2-			RSA	Fil	Fil	Al W1	C2	1	85.7	20.7	36.0	56.5	41.8				16.7	6.5	23.8	17.3	5.3	9.0	13.0	27.0	8.5	372.3	254.8	117.5	53.0	25.5	S2		33.8	-16.7	2.95	2.17
01.août		F	W2-			RSA	Fil	Fil	Al W1	C2	2	85.9	19.8	36.0	55.5	44.9			17.2		6.5	23.5	17.0	4.3	9.0	13.0	27.0	8.5	372.3	254.8	117.5	53.0	25.5	S2		33.6	17.2	2.94	2.17
01.août		F	W2-			RSA	Fil	Fil	Al W1	C2	Average	85.8	20.3	36.0	56.0	43.4			17.2	16.7	6.5	23.7	17.2	4.8	9.0	13.0	27.0	8.5	372.3	254.8	117.5	53.0	25.5	S2		33.7	0.5	2.95	2.17
01.août		F	W2-			USA	Ves	Ves	Al W1	Dre	1	86.6	23.5	34.0	57.5	37.4			16.2		2.0	20.0	18.0	5.4	13.5	13.5	31.0	0.0	371.0	255.0	116.0	56.0	25.0	BB		31.4	16.2	2.92	2.18
01.août		F	W2-			USA	Ves	Ves	Al W1	Dre	2	86.4	21.5	34.0	57.5	42.0				16.0	2.2	18.4	16.2	2.4	12.0	12.0	31.0	0.0	371.0	255.0	116.0	56.0	25.0	BB		31.6	-16.0	2.93	2.18
01.août		F	W2-			USA	Ves	Ves	Al W1	Dre	Average	86.5	22.5	34.0	57.5	39.7			16.2	16.0	2.1	19.2	17.1	3.9	12.8	12.8	31.0	0.0	371.0	255.0	116.0	56.0	25.0	BB		31.5	0.2	2.92	2.18

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull / Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
05.août	F	M2-	1	06:50.5	ROU	Fil	Fil	Al W1	Cro	Average	86.8	14.8	39.5	62.8	40.5	24.8	48.0	16.3	16.5	5.7	33.3	27.6	14.9	11.8	13.0	29.3	2.5	376.0	259.1	116.9	55.5	25.5	Sli		32.1	-0.2	2.96	2.21	4.87
05.août	F	M2-	2	06:51.8	ESP	Fil	Fil	Al W1	C2	Average	86.2	18.4	30.8	54.5	41.4	12.4	36.1	16.2	16.4	5.9	23.8	17.9	4.4	10.5	14.0	30.5	6.6	373.5	257.5	116.0	54.0	25.5	S2		31.9	-0.2	2.97	2.22	4.86
05.août	F	M2-	3	06:53.1	GRE	Fil	Fil	Al W1	C2	Average	87.3	18.9	38.0	63.8	40.2	19.2	44.9	16.4	17.6	5.4	22.6	17.2	3.4	9.8	14.3	32.3	8.0	376.0	258.0	118.0	54.0	25.5	S2		32.8	-1.2	2.93	2.18	4.84
			4	06:54.4	GER	missing sheet?																																		4.83
			5	06:57.7	SRB	did not measure																																		4.79
31.juil	F	M2-	6	07:03.7	RSA	Fil	Fil	Al W1	C2	Average	85.3	24.5	37.1	63.5	42.6	12.7	39.1	18.8	17.9	5.2	24.2	19.0	4.8	11.0	12.9	31.5	3.4	373.5	257.0	116.6	53.0	25.0	S2		33.3	0.9	2.99	2.21	4.72
02.août	F	M2-	7	06:57.1	BUL	Fil	Fil	Al 3	C2	Average	85.4	7.1	29.9	53.6	41.8	22.9	46.5	18.2	17.4	8.6	26.8	18.2	3.9	11.0	12.8	32.0	3.1	373.5	257.0	116.5	52.0	25.0	BB		33.1	0.8	2.99	2.21	4.79
03.août	F	M2-	8	06:59.5	USA	Win	Win	Al W1	C2	Average	85.9	18.8	37.9	60.7	43.3	19.1	41.9	16.9	17.2	6.7	23.7	17.0	3.4	13.3	15.5	29.8	4.3	365.5	249.5	116.0	54.5	26.5	F2S	V	32.2	-0.3	2.88	2.14	4.77
05.août	F	M2-	9	07:00.9	HUN	Sch	Sch	Al 3	C2	Average	86.8	18.6	38.3	60.3	43.8	19.7	41.7	16.0	17.6	8.8	24.9	16.2	2.6	12.5	15.0	29.5	4.9	372.3	256.5	115.8	54.0	25.5	S2		31.0	-1.6	2.93	2.21	4.75
05.août	P	M2-	10	07:03.7	CHI	Fil	Fil	Al W1		Average	86.6	14.3	34.5	56.5	39.5	20.3	42.3	15.5	15.8	6.2	21.7	15.5	3.9	11.0	12.5	27.5	3.1								31.0	-0.3			4.72
02.août P183	F	M2-	11	07:04.5	FRA	Fil	Fil	Al W1	C2	Average	86.1	15.6	39.5	62.3	41.0	23.9	46.7	15.1	16.6	6.5	24.4	17.9	4.6	11.5	12.8	30.3	2.4	373.8	257.5	116.3	54.0	25.5	S2		32.2	-1.4	2.97	2.21	4.71
02.août	F	M2-	12	07:07.4	GBR	Emp	Emp	Al 3	C2	Average	86.3	15.3	37.0	61.8	42.7	21.8	45.7	17.5	17.2	8.9	27.5	18.7	4.2	9.8	12.5	32.0	4.9	374.3	258.3	116.0	54.0	25.5	S2		31.8	0.5	2.97	2.23	4.68
03.août	F	M2-	13	07:01.1	SLO	Emp	Emp	Al 2	C2	Average	85.9	12.7	33.1	55.5	45.6	20.4	42.8	16.2	15.7	9.7	26.9	17.3	3.2	10.9	12.9	29.5	4.0	373.0	257.3	115.7	55.0	25.0	BB		31.8	0.5	2.97	2.22	4.75
			14	07:01.2	LTU	did not measure																																		4.75
05.août	F	M2-	15	07:03.6	EST	Fil	Fil	Al W1	C2	Average	85.3	11.9	35.8	60.3	45.5	23.9	48.4	17.5	17.0	8.7	26.3	17.6	1.9	9.5	13.0	33.0	6.1	375.3	258.3	117.0	54.5	25.0	S2	V	33.8	0.5	3.01	2.20	4.72
05.août	F	M2-	16	07:05.2	BRA	Fil	Fil	Al 3	C2	Average	85.0	19.0	40.3	64.8	46.4	21.3	45.8	16.5	16.9	8.0	24.5	16.5	1.1	10.5	14.0	32.0	6.3	374.5	259.5	115.0	54.0	24.5	S2	V	32.0	-0.4	3.03	2.26	4.70
			17	07:05.5	NOR	did not measure																																		4.70
03.août	F	M2-	18	07:11.1	PAR	Win	Win	Al W1	C2	Average	86.9	11.7	36.3	58.8	43.0	24.6	47.1	16.0	18.1	6.0	24.3	18.3	4.1	11.5	15.5	31.3	7.4	375.0	258.0	117.0	55.0	25.0	S2		32.2	-2.1	2.95	2.20	4.64
Average for class		M2-									86.1	15.8	36.3	59.9	42.6	20.5	44.1	16.7	17.0	7.1	25.3	18.2	4.3	11.0	13.6	30.7	4.8	373.5	257.2	116.4	54.1	25.3			32.3	-0.3	2.97	2.21	4.76
Standard deviation		M2-									0.7	4.3	3.2	3.6	2.1	3.9	3.6	1.0	0.7	1.5	2.8	2.9	3.2	1.0	1.1	1.5	1.8	2.7	2.5	0.8	0.9	0.5			0.7	0.9	0.04	0.03	0.06
% standard deviation		M2-									0.8%	27.2%	8.8%	6.0%	5.0%	19.1%	8.1%	6.2%	4.3%	21.3%	11.1%	15.8%	74.6%	9.5%	8.1%	4.9%	38.3%	0.7%	1.0%	0.7%	1.7%	1.9%			2.3%	-277.1%	0.01	0.01	0.01
02.août	F	W2-	1	07:25.4	ITA	Fil	Fil	Al W1	Cro	Average	86.2	13.2	31.4	51.5	42.8	18.2	38.3	16.2	14.8	5.0	21.2	16.2	3.3	8.7	13.4	28.5	9.6	371.7	256.2	115.5	55.0	25.5	Sli		31.4	1.4	2.95	2.21	4.49
01.août	F	W2-	2	07:29.6	GER	Emp	Emp	Al W1	C2	Average	85.5	19.8	35.5	57.5	43.8	15.8	37.8	15.0	15.4	7.5	22.6	15.1	0.0	adjustable	0.0	29.5	0.0	373.0	257.0	116.0	52.0	25.0	BB		32.6	-0.4	2.98	2.22	4.45
05.août	F	W2-	3	07:29.8	GRE	Fil	Fil	Al W1	C2	Average	86.1	20.3	37.5	64.8	38.0	17.3	44.5	16.7	14.4	4.2	19.3	15.1	3.8	10.0	13.3	27.5	6.8	371.8	254.8	117.0	52.0	25.0	S2		32.9	2.3	2.94	2.18	4.45
03.août	F	W2-	4	07:31.9	ROU	Emp	Emp	Al 3	Cro	Average	88.5	16.9	37.5	58.9	36.2	20.7	42.0	14.6	14.3	7.0	22.1	15.1	4.0	9.5	13.3	28.3	7.6	373.0	255.5	117.5	55.0	25.5	Sli		31.1	0.3	2.87	2.16	4.43
02.août P174	F	W2-	5	07:34.8	FRA	Fil	Fil	Al W1	C2	Average	86.1	17.8	36.3	58.2	42.2	18.6	40.5	14.4	15.5	6.1	22.4	16.3	3.5	10.5	14.0	28.8	7.0	375.0	260.0	115.0	52.5	25.0	BB		30.9	-1.1	3.00	2.27	4.40
01.août	F	W2-	6	07:36.9	USA	Ves	Ves	Al W1	Dre	Average	86.5	22.5	34.0	57.5	39.7	11.5	35.0	16.2	16.0	2.1	19.2	17.1	3.9	12.8	12.8	31.0	0.0	371.0	255.0	116.0	56.0	25.0	BB		31.5	0.2	2.92	2.18	4.38
02.août	F	W2-	7	07:38.3	NOR	Hud	Hud	Al W1	C2	Average	87.4	25.0	42.6	63.0	45.0	17.6	38.0	15.2	15.5	2.7	19.1	16.5	3.2	11.2	15.8	28.2	9.4	367.8	250.6	117.2	54.5	24.5	S2		31.8	-0.3	2.84	2.13	4.36
01.août	F	W2-	8	07:39.4	RSA	Fil	Fil	Al W1	C2	Average	85.8	20.3	36.0	56.0	43.4	15.8	35.8	17.2	16.7	6.5	23.7	17.2	4.8	9.0	13.0	27.0	8.5	372.3	254.8	117.5	53.0	25.5	S2		33.7	0.5	2.95	2.17	4.35
01.août	F	W2-	did not race		GBR	Emp	Emp	Al 3	C2	Average	86.3	15.7	43.4	61.9	43.1	27.7	46.2	17.0	17.4	8.5	26.1	17.6	3.0	10.3	12.3	32.0	3.6	374.0	258.0	116.0	53.0	25.5	S2		31.8	-0.4	2.97	2.23	
Average for class		W2-									86.5	19.0	37.1	58.8	41.6	18.1	39.8	15.8	15.6	5.5	21.7	16.2	3.3	10.2	12.0	29.0	5.8	372.2	255.8	116.4	53.7	25.2			31.9	0.3	2.94	2.19	4.41
Standard deviation		W2-									0.9	3.6	3.8	4.0	2.9	4.4	3.8	1.1	1.0	2.2	2.3	1.0	1.3	1.3	4.6	1.6	3.7	2.1	2.6	0.9	1.5	0.4			0.9	1.0	0.05	0.04	0.05
% standard deviation		W2-									1.1%	18.8%	10.3%	6.8%	7.1%	24.3%	9.6%	6.7%	6.6%	39.7%	10.8%	6.0%	40.9%	12.8%	38.4%	5.6%	64.2%	0.6%	1.0%	0.8%	2.8%	1.4%			2.9%	372.3%	0.02	0.02	0.01
Difference M vs W		2-									-0.4	-3.2	-0.9	1.1	1.1	2.4	4.3	0.8	1.4	1.6	3.6	2.0	1.0	0.8	1.6	1.8	-1.0	1.4	1.4	0.0	0.4	0.1			0.357	-0.613	0.03	0.01	0.34

2-

Name	Boat Maker	Rigger Maker		Name	Rigger type		Name	Blade Maker		Name	Blade Shape
Emp	5	5		Al W1	15		C2	18		BB	####
Fil	13	13		Al W	0		Cro	3		S2	####
Win	2	2		CF W	0		Emp	-		F2S	1
Syk	0	0		CF W1	0		Dre	1		Apex	0
Sch	1	1		CF 2	0		Bra	-		Apexl	0
Hud	1	1		Al 3	7		Bra/C2	-		Sli	3
Swi	0	0		Al 2	1					Cle	0
CD	0	0		Al W(Bow	0					DSn	0
Ves	1	1		CF W(Bow	0					Sm	0
										Bra/F	0
missing	4	4		missing	4		Missing	5		Missin	5
Total	27	27		Total	27		Total	27		Total	#REF!
Check	27	27		Check	27		Check	27		Check	27

Date	Boat ID	F/P	Boat type/Event	Finish Position	Time	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work – Heels (cm)	Line of Work – Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels – Horizontal (cm)	Seat to toes – Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
01.août		F	M4-			AUS	Syk	Syk	Al W1	Cro	1		86.0	15.5	37.5	59.0	43.4	22.0	43.5	17.5		6.0	23.4	17.4	4.3	10.4	12.4	28.6	4.0	375.0	259.0	116.0	55.5	25.5	Sli		32.0		2.99	2.23
01.août		F	M4-			AUS	Syk	Syk	Al W1	Cro	2		86.4	14.5	35.5	57.5	41.5	21.0	43.0		17.5	5.3	22.0	16.7	3.8	11.2	12.0	29.2	1.6	375.0	259.0	116.0	55.5	25.5	Sli		31.6		2.97	2.23
01.août		F	M4-			AUS	Syk	Syk	Al W1	Cro	3		86.1	12.5	33.0	54.0	43.6	20.5	41.5	17.0		6.3	23.0	16.7	2.9	10.4	11.8	30.0	2.7	374.5	258.5	116.0	55.5	25.5	Sli		31.9		2.98	2.22
01.août		F	M4-			AUS	Syk	Syk	Al W1	Cro	4		86.2	15.2	35.2	56.0	43.0	20.0	40.8	16.8		6.0	23.0	17.0	3.3	9.8	14.1	30.2	8.2	374.5	258.5	116.0	55.5	25.5	Sli		31.8		2.98	2.22
01.août		F	M4-			AUS	Syk	Syk	Al W1	Cro	Average		86.2	14.4	35.2	56.6	42.9	20.9	42.2	17.2	17.3	5.9	22.9	17.0	3.6	10.5	12.6	29.5	4.1	374.8	258.8	116.0	55.5	25.5	Sli		31.8		2.98	2.22
04.août		F	M4-			BLR	Emp	Emp	Al 3	Bra	1		85.0	17.0	38.5	59.5	42.0	21.5	42.5	17.5		9.5	28.0	18.5	5.6	10.0	15.0	29.0	9.9	378.0	263.0	115.0	57.5	24.6	BB		32.0		3.07	2.28
04.août		F	M4-			BLR	Emp	Emp	Al 3	Bra	2		85.0	16.5	35.0	56.8	42.0	18.5	40.3		17.0	9.8	26.0	16.2	2.6	10.0	14.5	30.5	8.5	378.0	263.0	115.0	57.5	24.6	BB		32.0		3.07	2.28
04.août		F	M4-			BLR	Emp	Emp	Al 3	Bra/C2	3		85.0	16.0	38.5	65.0	42.0	22.5	49.0	17.2		9.8	29.5	19.7	4.8	10.0	14.0	33.5	6.8	374.0	258.6	115.4	54.5	26.5	F2S	V	32.4		3.02	2.24
04.août		F	M4-			BLR	Emp	Emp	Al 3	Bra/C2	4		85.0	16.0	35.0	56.0	42.0	19.0	40.0		17.0	11.5	28.5	17.0	4.1	9.0	15.0	29.0	11.9	374.0	258.6	115.4	54.5	26.5	F2S	V	32.4		3.02	2.24
04.août		F	M4-			BLR	Emp	Emp	Al 3	Bra/C2	Average		85.0	16.4	36.8	59.3	42.0	20.4	43.0	17.4	17.0	10.2	28.0	17.9	4.3	9.8	14.6	30.5	9.3	376.0	260.8	115.2	56.0	25.6	BB/F2S		32.2		3.04	2.26
04.août		F	M4-			BUL	Sch	Sch	Al W1	C2	1		85.0	16.4	32.0	54.0	42.5	15.6	37.6	16.7		9.4	27.0	17.6	4.8	13.0	15.0	28.5	4.0	377.5	262.5	115.0	55.5	25.0	BB		32.0		3.06	2.28
04.août		F	M4-			BUL	Sch	Sch	Al W1	C2	2		84.9	14.5	35.5	58.0	42.5	21.0	43.5		18.0	9.6	26.4	16.8	4.0	13.5	15.5	28.5	4.0	375.5	260.5	115.0	55.5	25.0	BB		32.1		3.04	2.26
04.août		F	M4-			BUL	Sch	Sch	Al W1	C2	3		85.2	17.5	35.0	58.0	42.5	17.5	40.5	17.8		9.0	28.2	19.2	5.5	12.5	15.0	30.5	4.7	375.5	260.5	115.0	55.5	25.0	BB		31.8		3.03	2.26
04.août		F	M4-			BUL	Sch	Sch	Al W1	C2	4		84.7	15.0	32.0	53.0	41.0	17.0	38.0		18.5	9.4	26.6	17.2	5.0	14.4	15.0	28.0	1.2	375.5	260.5	115.0	55.5	25.0	BB		32.3		3.05	2.26
04.août		F	M4-			BUL	Sch	Sch	Al W1	C2	Average		85.0	15.9	33.6	55.8	42.1	17.8	39.9	17.3	18.3	9.4	27.1	17.7	4.8	13.4	15.1	28.9	3.5	376.0	261.0	115.0	55.5	25.0	BB		32.1		3.05	2.27
04.août		P	M4-			CAN	Hud	Hud	Al W1		1		85.5	15.0	37.0	62.5	41.5	22.0	47.5	17.8		4.5	27.0	22.5	9.3	11.0	16.5	30.0	5.9											
04.août		P	M4-			CAN	Hud	Hud	Al W1		2		85.0	15.0	37.0	61.5	42.0	22.0	46.5		19.5	6.5	28.0	21.5	7.7	12.5	17.5	31.0	15.7											
04.août		P	M4-			CAN	Hud	Hud	Al W1		3		85.0	22.5	41.0	64.5	42.5	18.5	42.0	19.0		6.3	25.5	19.2	5.5	11.5	16.0	30.5	21.6											
04.août		P	M4-			CAN	Hud	Hud	Al W1		4		85.0	22.7	41.0	63.5	44.2	18.3	40.8		20.0	6.0	25.0	19.0	5.8	12.5	15.0	28.5	25.9											
04.août		P	M4-			CAN	Hud	Hud	Al W1		Average		85.1	18.8	39.0	63.0	42.6	20.2	44.2	18.4	19.8	5.4	26.4	20.6	7.1	11.9	16.3	30.0	17.3											
04.août		F	M4-			DEN	Emp	Emp	Al W1		1		85.0	19.7	30.6	56.0	42.9	10.9	36.3	16.5		12.0	27.8	15.8	3.0	9.5	14.0	30.0	8.6	375.5	259.5	116.0	56.0	25.0	S2		33.0		3.03	2.23
04.août		F	M4-			DEN	Emp	Emp	Al W1	C2	2		85.0	17.6	31.0	52.0	43.0	13.4	34.4		16.8	11.8	27.8	16.0	3.3	10.5	14.5	28.0	8.2	375.5	259.5	116.0	56.0	25.0	S2		33.0		3.03	2.23
04.août		F	M4-			DEN	Emp	Emp	Al W1	C2	3		85.0	20.0	33.3	56.0	43.0	13.3	36.0	17.6		12.0	28.2	16.2	3.7	9.5	13.5	27.5	8.3	375.5	259.5	116.0	56.0	25.0	S2		33.0		3.03	2.23
04.août		F	M4-			DEN	Emp	Emp	Al W1	C2	4		85.0	21.5	33.5	56.5	44.0	12.0	35.0		17.2	12.0	28.3	16.3	3.1	12.0	13.0	28.5	2.0	375.5	259.5	116.0	56.0	25.0	S2		33.0		3.03	2.23
04.août		F	M4-			DEN	Emp	Emp	Al W1	C2	Average		85.0	19.7	32.1	55.1	42.5	12.4	35.4	17.1	17.0	12.0	28.0	16.1	3.3	10.4	13.8	28.5	6.8	375.5	259.5	116.0	56.0	25.0	S2		33.0		3.03	2.23
04.août		P	M4-			ESP	Fil	Fil	Al W1		1		85.0	20.5	40.5	60.5	40.5	20.0	40.0	17.8		8.6	25.5	16.9	3.9	11.5	15.5	30.0	7.6											
04.août		P	M4-			ESP	Fil	Fil	Al W1		2		84.5	19.7	35.5	60.0	41.0	15.8	40.3		17.8	8.5	25.3	16.8	3.9	10.0	14.5	29.5	8.7											
04.août		P	M4-			ESP	Fil	Fil	Al W1		3		84.9	19.3	39.0	64.0	40.2	19.7	44.7	16.9		8.6	27.9	19.3	6.0	11.0	14.5	31.0	6.5											
04.août		P	M4-			ESP	Fil	Fil	Al W1		4		84.0	21.0	42.0	66.0	42.8	21.0	45.0		18.3	8.4	26.2	17.8	3.8	10.0	14.0	31.0	7.4											
04.août		P	M4-			ESP	Fil	Fil	Al W1		Average		84.6	20.1	39.3	62.6	41.1	19.1	42.5	17.4	18.1	8.5	26.2	17.7	4.4	10.6	14.6	30.4	7.6											
31.juil		F	M4-	-		FRA	Emp	Emp	Al W1	C2	1		85.4	21.5	34.6	56.9	43.0	13.1	35.4	16.5		5.8	26.2	20.4	7.2	11.0	13.0	29.0	4.0	375.0	259.0	116.0	64.0	25.5	S2		32.6		3.01	2.18
31.juil		F	M4-	-		FRA	Emp	Emp	Al W1	C2	2		85.4	21.5	35.0	63.5	42.5	19.0	42.0		18.3	7.0	24.0	17.0	3.5	10.0	14.0	30.0	7.6	376.0	260.0	116.0	64.0	25.5	S2		32.6		3.02	2.19
31.juil		F	M4-	-		FRA	Emp	Emp	Al W1	C2	3		85.5	21.9	40.5	63.0	38.5	18.6	41.1	18.0		7.0	23.0	16.0	2.9	11.0	14.0	31.5	5.5	377.0	261.0	116.0	64.0	25.5	S2		32.5		3.03	2.20
31.juil		F	M4-	-		FRA	Emp	Emp	Al W1	C2	4		85.5	21.8	42.7	62.6	43.5	20.9	40.8		18.3	7.3	25.3	18.0	3.8	10.0	13.5	31.0	6.5	378.0	262.0	116.0	64.0	25.5	S2		32.5		3.04	2.21
31.juil		F	M4-	-		FRA	Emp	Emp	Al W1	C2	Average		85.5	21.7	39.6	61.5	41.9	17.9	39.8	18.3	17.3	6.8	24.6	17.9	4.4	10.5	13.6	30.4	5.9	376.5	260.5	116.0	64.0	25.5	S2		32.6		3.03	2.20
04.août		F	M4-			GBR	Emp	Emp	Al W1	C2	1		85.0	12.5	38.5	63.0	42.4	26.0	50.5	15.5		6.0	28.0	22.0	6.3	12.5	14.5	35.0	3.3	374.0	259.0	115.0	54.0	25.5	S2		32.0		3.02	2.25
04.août		F	M4-			GBR	Emp	Emp	Al W1	C2	2		84.6	10.0	40.0	66.0	42.0	21.0	47.0	17.2		6.5	27.3	18.8	3.9	10.0	14.5	34.9	7.4	374.0	259.0	115.0	54.0	25.5	S2		32.4		3.04	2.25
04.août		F	M4-			GBR	Emp	Emp	Al W1	C2	3		84.3	16.7	39.0	64.5	39.5	22.3	47.8		16.5	7.8	27.8	20.0	6.1	9.0	13.0	32.8	7.0	374.0	260.0	114.0	54.0	25.5	S2		31.7		3.06	2.29
04.août		F	M4-			GBR	Emp	Emp	Al W1	C2	4		85.0	19.3	35.0	60.0	40.0	15.7	40.7	15.4		7.9	27.6	19.7	6.0	10.0	14.0	32.0	7.2	374.0	260.0	114.0	54.0	25.5	S2		31.0		3.04	2.29
04.août		F	M4-			GBR	Emp	Emp	Al W1	C2	Average		84.7	16.9	38.1	63.4	40.5	21.3	46.5	16.3	16.0	7.6	27.7	20.1	5.6	10.4	14.0	33.7	6.2	374.0	259.5	114.5	54.0	25.5	S2		31.8		3.04	2.27
01.août		F	M4-			GER	Emp	Emp	CF 2	C2	1		85.0	19.0	37.0	60.0	43.6	18.0	41.0	17.1		10.8	27.3	16.5	2.9	10.2	13.1	29.6	5.6	372.2	257.2	115.0	51.5	25.0	BB		32.0		3.00	2.25
01.août		F	M4-			GER	Emp	Emp	CF 2	C2	2		85.3	20.7	42.2	66.0	43.6	21.5	44.5		16.3	10.9	27.7	16.8	3.1	11.8	13.0	29.7	2.3	372.2	257.2	115.0	51.5	25.0	BB		31.7		2.99	2.25
01.août		F	M4-			GER	Emp	Emp	CF 2	C2	3		85.1	22.4	31.4	54.8	43.6	9.0	32.4	16.0		10.2	26.3	16.1	2.1	9.6	13.3	30.6	6.9	372.2	257.2	115.0	51.5	25.0	BB		31.9		3.00	2.25
01.août		F	M4-			GER	Emp	Emp	CF 2	C2	4		85.2	19.2	37.6	61.0	42.6	18.4	41.8		16.4	10.8	27.9	17.1	3.4	10.2	13.2	30.4	5.7	372.2	257.2	115.0	51.5	25.0	BB		31.8		3.00	2.25
01.août		F	M4-			GER	Emp	Emp	CF 2	C2	Average		85.2	20.3	37.1	60.3	43.4	16.7	39.9	16.4	16.6	10.7	27.3	16.6	2.9	10.5	13.2	30.1	5.1	372.2	257.2	115.0	51.5	25.0	BB		31.9		3.00	2.25
04.août		F	M4-			GRE	Emp	Emp	Al W1	C2	1		85.9	22.5	40.0	63.0	40.8	17.5	40.5	16.0		7.0	23.0	16.0	3.2	10.5	15.0	29.5	8.7	373.5	258.3	115.2	54.0	25.5	S2		31.3		2.98	2.24
04.août		F	M4-			GRE	Emp	Emp	Al W1	C2	2		84.9	20.4	39.0	63.0	39.9	18.6	42.6		16.5	7.5	23.0	15.5	2.5	9.5	14.5	30.5	9.4	374.5	259.3	115.2	54.0	25.5	S2		32.3		3.03	2.25
04.août		F	M4-			GRE	Emp	Emp	Al W1	C2	3		85.2	16.9	39.0	62.0	41.3	22.1	45.1	17.0		7.5	24.5	17.0	3.8	12.0	15.0	30.0	5.7	374.5	259.3	115.2	54.0	25.5	S2		32.0		3.02	2.25

1 General Information | **2 Manufacturer's Information** | **3 Span and Arc position** | **4 Relative Height Data** | **5 Splay** | **6 Oar data** | **7 Gearing**

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
04.août		F	M4-			GRE	Emp	Emp	Al W1	C2	4		85.6	18.5	38.5	62.0	42.5	20.0	43.5		17.0	7.5	23.5	16.0	2.3	11.0	15.0	30.5	7.5	374.0	258.8	115.2	54.0	25.5	S2		31.6		3.00	2.25
04.août		F	M4-			GRE	Emp	Emp	Al W1	C2	Average		85.4	19.6	39.1	62.5	41.1	19.6	42.9	16.5	16.8	7.4	23.5	16.1	2.9	10.8	14.9	30.1	7.9	374.1	258.9	115.2	54.0	25.5	S2		31.8		3.01	2.25
04.août		F	M4-			ITA	Fil	Fil	Al W1	C2	1		85.2	13.0	33.5	58.5	42.8	20.5	45.5	17.5		8.0	26.5	18.5	4.7	10.5	13.5	30.5	5.6	374.5	258.8	115.7	52.0	25.0	BB		32.5		3.01	2.25
04.août		F	M4-			ITA	Fil	Fil	Al W1	C2	2		85.2	17.5	33.5	57.5	43.0	16.0	40.0		16.7	7.5	25.5	18.0	4.4	11.0	12.5	30.0	2.9	374.5	258.8	115.7	52.0	25.0	BB		32.5		3.01	2.25
04.août		F	M4-			ITA	Fil	Fil	Al W1	C2	3		85.1	14.5	38.5	61.5	42.2	24.0	47.0	17.5		8.0	26.5	18.5	5.5	10.0	13.5	29.0	6.9	374.5	258.8	115.7	52.0	25.0	BB		32.6		3.02	2.25
04.août		F	M4-			ITA	Fil	Fil	Al W1	C2	4		84.9	15.5	37.0	61.5	41.5	21.5	46.0		17.5	7.5	25.5	5.0	-8.0	11.5	13.0	29.5	2.9	374.5	258.8	115.7	52.0	25.0	BB		32.8		3.02	2.25
04.août		F	M4-			ITA	Fil	Fil	Al W1	C2	Average		85.1	15.1	35.6	59.8	42.4	20.5	44.6	17.5	17.1	7.8	26.0	15.0	1.6	10.8	13.1	29.8	4.6	374.5	258.8	115.7	52.0	25.0	BB		32.6		3.02	2.25
04.août		F	M4-			POL	Emp	Emp	Al 3	C2	1		85.0	15.0	26.5	51.0	42.0	11.5	36.0	16.6		11.0	28.5	17.5	4.4	11.0	14.0	29.5	5.8	375.0	259.0	116.0	54.0	25.5	S2		33.0		3.02	2.23
04.août		F	M4-			POL	Emp	Emp	Al 3	C2	2		85.2	16.5	28.5	52.0	48.0	12.0	35.5		16.8	10.9	29.0	18.1	3.5	11.0	13.5	29.5	4.9	375.0	259.0	116.0	54.0	25.5	S2		32.8		3.02	2.23
04.août		F	M4-			POL	Emp	Emp	Al 3	C2	3		85.0	12.0	27.0	52.0	44.0	15.0	40.0	17.0		10.9	28.5	17.0	3.0	10.0	13.5	31.5	6.4	375.0	259.0	116.0	54.0	25.5	S2		33.0		3.02	2.23
04.août		F	M4-			POL	Emp	Emp	Al 3	C2	4		85.0	12.7	32.5	55.0	44.5	19.8	42.3		18.2	11.0	28.5	17.5	3.3	13.5	12.5	30.5	-1.9	375.0	259.0	116.0	54.0	25.5	S2		33.0		3.02	2.23
04.août		F	M4-			POL	Emp	Emp	Al 3	C2	Average		85.1	14.1	28.6	52.5	44.6	14.6	38.5	16.9	17.4	11.0	28.6	17.7	3.5	11.4	13.4	30.3	3.8	375.0	259.0	116.0	54.0	25.5	S2		33.0		3.02	2.23
04.août		F	M4-			ROU	Fil	Fil	Al W1	Cro	1		85.5	15.0	36.5	60.0	40.8	21.5	45.0	17.3		10.5	29.0	18.5	5.0	10.0	13.0	31.0	5.5	376.5	261.5	115.0	55.0	25.5	Sli		31.5		3.04	2.27
04.août		F	M4-			ROU	Fil	Fil	Al W1	Cro	2		85.5	15.0	36.5	60.0	40.5	21.5	45.0		18.3	10.5	28.7	18.2	5.2	10.5	13.0	30.0	4.8	376.5	261.5	115.0	55.0	25.5	Sli		31.5		3.04	2.27
04.août		F	M4-			ROU	Fil	Fil	Al W1	Cro	3		85.6	14.5	37.5	62.0	39.8	21.5	46.0	17.5		10.5	27.5	17.0	4.2	10.0	13.0	30.0	5.7	376.5	261.5	115.0	55.0	25.5	Sli		31.4		3.03	2.27
04.août		F	M4-			ROU	Fil	Fil	Al W1	Cro	4		85.5	17.0	37.0	62.0	42.5	20.0	45.0		17.2	10.5	27.0	16.5	2.5	10.5	13.0	31.0	4.6	376.5	261.5	115.0	55.0	25.5	Sli		31.5		3.04	2.27
04.août		F	M4-			ROU	Fil	Fil	Al W1	Cro	Average		85.5	15.8	36.9	61.0	40.9	21.1	45.3	17.4	17.8	10.5	28.1	17.6	4.2	10.3	13.0	30.5	5.2	376.5	261.5	115.0	55.0	25.5	Sli		31.5		3.03	2.27
04.août		F	M4-			RSA	Fil	Fil	CF W1	C2	1		84.5	21.4	39.0	61.0	40.7	17.6	39.6	15.9		8.6	23.4	14.8	1.8	11.5	18.0	30.0	12.4	374.0	258.0	116.0	54.5	25.5	S2		33.5		3.03	2.22
04.août		F	M4-			RSA	Fil	Fil	CF W1	C2	2		84.2	23.5	40.4	63.5	42.0	16.9	40.0		15.9	8.5	26.4	17.9	3.2	11.5	17.0	33.0	9.6	374.0	258.0	116.0	54.5	25.5	S2		33.8		3.04	2.22
04.août		F	M4-			RSA	Fil	Fil	CF W1	C2	3		84.2	24.8	39.6	60.0	42.1	14.8	35.2	15.9		8.3	26.0	17.7	3.2	11.5	17.0	32.0	9.7	374.0	258.0	116.0	54.5	25.5	S2		33.8		3.04	2.22
04.août		F	M4-			RSA	Fil	Fil	CF W1	C2	4		84.0	17.8	35.5	58.0	40.8	17.7	40.2		17.0	8.5	22.3	13.8	-0.1	13.0	16.5	32.0	6.3	374.0	258.0	116.0	54.5	25.5	S2		34.0		3.05	2.22
04.août		F	M4-			RSA	Fil	Fil	CF W1	C2	Average		84.2	21.9	38.6	60.6	41.4	16.8	38.8	15.9	16.5	8.5	24.5	16.1	2.0	11.9	17.1	31.9	9.5	374.0	258.0	116.0	54.5	25.5	S2		33.8		3.04	2.22
04.août		F	M4-			SRB	Sch	Sch	CF 2	Cro	1		85.2	18.5	35.5	61.0	41.8	17.0	42.5	18.0		11.0	28.5	17.5	3.3	9.5	15.0	32.0	9.9	372.0	257.0	115.0	55.5	25.5	Sli		31.8		2.99	2.23
04.août		F	M4-			SRB	Sch	Sch	CF 2	Cro	2		84.8	20.0	37.8	62.5	40.8	17.8	42.5		18.0	11.0	28.2	17.2	3.7	11.0	14.0	31.0	5.5	372.0	257.0	115.0	55.5	25.5	Sli		32.2		3.01	2.23
04.août		F	M4-			SRB	Sch	Sch	CF 2	Cro	3		84.9	15.5	43.0	68.5	42.4	17.5	53.0	18.0		11.0	29.0	18.0	3.9	11.0	14.5	31.0	6.4	372.0	257.0	115.0	55.5	25.5	Sli		32.1		3.00	2.23
04.août		F	M4-			SRB	Sch	Sch	CF 2	Cro	4		84.4	19.0	41.5	65.5	43.7	22.5	46.5		18.2	11.0	26.5	15.5	1.7	12.0	13.5	30.0	2.9	372.0	257.0	115.0	55.5	25.5	Sli		32.6		3.02	2.23
04.août		F	M4-			SRB	Sch	Sch	CF 2	Cro	Average		84.8	18.3	39.5	64.4	42.2	21.2	46.1	18.0	18.1	11.0	28.1	17.1	3.1	10.9	14.3	31.1	6.2	372.0	257.0	115.0	55.5	25.5	Sli		32.2		3.01	2.23
04.août		F	M4-			USA	Win	Win	Al W1	Dre	1		84.6	12.5	35.5	58.5	41.3	23.0	46.0	16.5		6.0	24.0	18.0	5.0	13.5	15.0	29.5	2.9	371.0	256.0	115.0	53.0	25.0	Apex		32.4		3.00	2.23
04.août		F	M4-			USA	Win	Win	Al W1	Dre	2		84.6	11.0	28.0	54.0	41.6	17.0	43.0		16.5	5.8	23.0	17.2	4.4	12.0	14.5	29.0	4.9	371.0	256.0	115.0	53.0	25.0	Apex		32.4		3.00	2.23
04.août		F	M4-			USA	Win	Win	Al W1	Dre	3		84.6	12.5	32.0	54.5	41.4	19.5	42.0		16.2	6.0	25.0	19.0	6.2	12.0	15.5	29.0	6.9	371.0	256.0	115.0	53.0	25.0	Apex		32.4		3.00	2.23
04.août		F	M4-			USA	Win	Win	Al W1	Dre	4		84.7	15.5	33.5	57.0	41.3	18.0	41.5	16.4		6.0	24.5	18.5	5.5	13.0	15.5	29.0	4.9	371.0	256.0	115.0	53.0	25.0	Apex		32.3		3.00	2.23
04.août		F	M4-			USA	Win	Win	Al W1	Dre	Average		84.6	12.9	32.3	56.0	41.4	19.4	43.1	16.5	16.4	6.0	24.1	18.2	5.3	12.6	15.1	29.3	4.9	371.0	256.0	115.0	53.0	25.0	Apex		32.4		3.00	2.23
01.août		P	W4-			AUS	Syk	Syk	Al W1	Cro	1		84.8	15.1	39.0	60.6	46.5	23.9	45.5	17.3		7.9	28.3	20.4	5.9	10.2	12.5	30.0	4.4											
01.août		P	W4-			AUS	Syk	Syk	Al W1	Cro	2		85.0	16.1	46.7	69.5	41.2	30.6	53.4		17.0	6.1	28.3	22.2	8.4	8.5	12.8	31.5	7.8											
01.août		P	W4-			AUS	Syk	Syk	Al W1	Cro	3		84.7	15.8	36.8	60.3	42.2	21.0	44.5		18.0	7.4	28.8	21.4	7.1	9.4	12.6	32.0	5.7											
01.août		P	W4-			AUS	Syk	Syk	Al W1	Cro	4		85.0	16.2	24.1	64.5	42.2	7.9	48.3	17.5		8.5	29.0	20.5	6.7	8.2	14.0	31.0	10.7											
02.août		P	W4-			AUS	Syk	Syk	Al W1	Cro	Average		84.9	16.0	35.9	64.8	41.9	19.8	48.7	17.3	17.3	7.3	28.7	21.4	7.4	8.7	13.1	31.5	8.1											0.15
03.août		F	W4-			BLR	Emp	Emp	Al 3	C2	1		85.8	16.0	35.0	60.2	39.0	19.0	44.2	17.0		11.0	26.0	15.0	2.8	12.0	14.0	29.0	4.0	377.0	260.0	117.0	54.0	25.0	S2		33.2		3.01	2.22
03.août		F	W4-			BLR	Emp	Emp	Al 3	C2	2		86.3	16.5	33.0	55.5	42.5	16.5	39.0		17.3	10.8	29.0	18.2	5.1	13.0	13.5	29.0	1.0	377.0	260.0	117.0	54.0	25.0	S2		32.7		2.99	2.22
03.août		F	W4-			BLR	Emp	Emp	Al 3	C2	3		85.6	17.5	40.0	52.2	41.9	22.5	34.7	18.0		11.5	27.3	15.8	3.6	11.5	14.5	27.5	6.3	377.0	260.0	117.0	54.0	25.0	S2		33.4		3.01	2.22
03.août		F	W4-			BLR	Emp	Emp	Al 3	C2	4		85.0	16.8	33.3	56.0	40.9	16.8	39.5		16.7	10.8	26.5	15.7	3.7	14.0	14.5	28.0	1.0	377.0	260.0	117.0	54.0	25.0	S2		34.0		3.04	2.22
03.août		F	W4-			BLR	Emp	Emp	Al 3	C2	Average		85.7	16.6	35.3	56.0	40.9	18.7	39.4	17.5	17.0	11.0	27.2	16.2	3.8	12.6	14.1	28.4	3.1	377.0	260.0	117.0	54.0	25.0	S2		33.3		3.01	2.22
31.juil		F	W4-	_		CAN	Hud	Hud	Al W	C2	1		86.0	19.4	33.6	57.0	46.0	14.2	37.6	16.6		5.4	23.2	17.8	5.2	12.0	18.0	26.5	13.0	371.0	254.0	117.0	53.0	25.5	S2		33.0		2.93	2.17
31.juil		F	W4-	_		CAN	Hud	Hud	Al W	C2	2		86.0	23.0	38.6	59.6	47.8	15.6	36.6		16.4	5.2	22.8	17.6	3.6	12.0	17.0	28.5	10.1	371.0	254.5	116.5	53.0	25.5	S2		32.5		2.94	2.18
31.juil		F	W4-	_		CAN	Hud	Hud	Al W	C2	3		85.0	26.0	38.2	59.8	46.6	12.2	33.8		16.2	5.4	21.8	16.4	2.7	10.5	18.0	28.5	15.1	371.5	257.0	114.5	53.0	25.5	S2		31.5		3.00	2.25
31.juil		F	W4-	_		CAN	Hud	Hud	Al W	C2	4		86.5	23.0	35.9	55.0	45.5	12.9	32.0	16.5		5.2	21.4	16.2	2.6	14.5	17.9	28.6	6.8	371.5	255.0	116.5	53.0	25.5	S2		32.0		2.92	2.19
31.juil		F	W4-	_		CAN	Hud	Hud	Al W	C2	Average		85.9	22.9	36.6	57.9	46.5	13.7	35.0	16.5	16.4	5.3	22.3	17.0	3.5	12.3	17.7	28.0	11.3	371.3	255.1	116.1	53.0	25.5	S2		32.3		2.95	2.20
03.août		F	W4-			CZE	Fil	Fil	Al W1	C2	1		85.0	21.6	31.0	51.5	43.3	9.4	29.9	16.6		9.3	25.8	16.5	3.3	9.5	16.0	29.0	12.9	374.0	258.0	116.0	55.0	24.5	S2		33.0		3.01	2.22

	1 General Information						2 Manufacturer's Information				3 Span and Arc position									4 Relative Height Data						5 Splay				6 Oar data							7 Gearing			
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
03.août		F	W4-			CZE	Fil	Fil	Al W1	C2	2		85.0	16.2	36.0	55.5	44.5	19.8	39.3	18.4		9.2	26.0	16.8	3.0	11.5	15.5	29.5	7.8	374.0	258.0	116.0	55.0	24.5	S2		33.0		3.01	2.22
03.août		F	W4-			CZE	Fil	Fil	Al W1	C2	3		85.0	24.0	29.5	49.7	43.8	5.5	25.7	18.1		9.2	26.4	17.2	3.7	10.0	16.0	29.5	11.7	374.0	258.0	116.0	55.0	24.5	S2		33.0		3.01	2.22
03.août		F	W4-			CZE	Fil	Fil	Al W1	C2	4		84.6	23.0	31.5	51.5	44.0	8.5	28.5		17.6	9.5	25.8	16.3	2.5	10.5	16.0	30.0	10.5	374.0	258.0	116.0	55.0	24.5	S2		33.4		3.03	2.22
03.août		F	W4-			CZE	Fil	Fil	Al W1	C2	Average		84.9	21.2	32.0	52.1	43.9	10.8	30.9	18.3	17.1	9.3	26.0	16.7	3.1	10.4	15.9	29.5	10.7	374.0	258.0	116.0	55.0	24.5	S2		33.1		3.02	2.22
03.août		F	W4-			FRA	Fil	Fil	Al W1	C2	1		85.2	20.0	33.0	56.0	40.7	13.0	36.0	14.8		8.0	24.0	16.0	4.3	11.0	14.0	27.0	6.4	373.0	258.0	115.0	52.5	25.0	BB		31.8		3.00	2.25
03.août		F	W4-			FRA	Fil	Fil	Al W1	C2	2		84.4	19.0	27.8	59.5	40.4	8.8	40.5		14.5	8.5	24.8	16.3	4.7	11.0	14.0	27.0	6.4	373.0	258.0	115.0	52.5	25.0	BB		32.6		3.03	2.25
03.août		F	W4-			FRA	Fil	Fil	Al W1	C2	3		85.0	20.6	28.0	46.8	40.7	7.4	26.2	15.5		8.5	23.5	15.0	3.7	12.0	14.0	26.0	4.4	373.0	258.0	115.0	52.5	25.0	BB		32.0		3.01	2.25
03.août		F	W4-			FRA	Fil	Fil	Al W1	C2	4		85.3	19.0	30.5	54.0	43.6	11.5	35.0		15.0	8.7	26.5	17.8	4.5	11.0	14.0	29.0	5.9	373.0	258.0	115.0	52.5	25.0	BB		31.7		3.00	2.25
03.août		F	W4-			FRA	Fil	Fil	Al W1	C2	Average		85.0	19.7	29.8	54.1	41.4	10.2	34.4	15.2	14.8	8.4	24.7	16.3	4.3	11.3	14.0	27.3	5.8	373.0	258.0	115.0	52.5	25.0	BB		32.0		3.01	2.25
02.août		F	W4-			GBR	Emp	Emp	Al 3	C2	1		85.0	21.5	40.5	61.0	44.9	19.0	39.5		17.2	10.9	29.0	18.1	4.3	9.9	14.1	29.4	8.2	371.0	256.2	114.8	54.5	25.5	S2		31.8		2.99	2.23
03.août		F	W4-			GBR	Emp	Emp	Al 3	C2	2		85.0	19.0	35.5	56.5	42.9	16.5	37.5	15.8		10.8	31.0	20.2	6.8	9.0	14.1	29.6	9.9	370.5	255.7	114.8	54.5	25.5	S2		31.8		2.98	2.22
04.août		F	W4-			GBR	Emp	Emp	Al 3	C2	3		85.0	19.5	36.0	57.0	43.8	16.5	37.5		16.0	10.6	27.8	17.2	3.5	9.3	14.7	29.8	10.4	370.5	255.5	115.0	54.5	25.5	S2		32.0		2.98	2.22
05.août		F	W4-			GBR	Emp	Emp	Al 3	C2	4		85.0	19.0	38.0	61.0	43.6	19.0	42.0	15.5		10.8	29.2	18.4	4.8	8.4	14.0	29.8	10.8	371.0	256.3	114.7	54.5	25.5	S2		31.7		2.99	2.23
06.août		F	W4-			GBR	Emp	Emp	Al 3	C2	Average		85.0	19.8	37.5	58.9	43.8	17.8	39.1	15.7	16.6	10.8	29.3	18.5	4.8	9.2	14.2	29.7	9.8	370.8	255.9	114.8	54.5	25.5	S2		31.8		2.99	2.23
02.août		F	W4-			GER	Emp	Emp	CF 2	C2	1		84.9	18.5	39.5	60.5	42.0	20.0	41.0		16.3	10.8	26.5	15.7	1.5	10.6	13.1	31.8	4.5	372.0	256.5	115.5	52.5	25.0	BB		32.6		3.00	2.23
02.août		F	W4-			GER	Emp	Emp	CF 2	C2	2		85.4	17.0	40.5	61.5	40.2	23.5	44.5	15.8		10.8	28.0	17.2	4.0	11.0	12.8	30.6	3.4	372.0	256.5	115.5	52.5	25.0	BB		32.1		2.98	2.23
02.août		F	W4-			GER	Emp	Emp	CF 2	C2	3		85.2	23.0	33.5	55.0	43.0	10.5	32.0		15.8	10.1	27.0	16.9	2.9	9.0	12.8	30.8	7.1	372.0	256.5	115.5	52.5	25.0	BB		32.3		2.99	2.23
02.août		F	W4-			GER	Emp	Emp	CF 2	C2	4		85.4	19.5	39.0	61.0	42.3	19.5	41.5	15.5		10.7	27.8	17.1	3.3	10.0	13.4	30.8	6.3	372.0	256.5	115.5	52.5	25.0	BB		32.1		2.98	2.23
02.août		F	W4-			GER	Emp	Emp	CF 2	C2	Average		85.2	19.8	38.1	59.5	41.9	18.4	39.8	15.7	16.1	10.6	27.3	16.7	2.9	10.2	13.0	31.0	5.3	372.0	256.5	115.5	52.5	25.0	BB		32.3		2.99	2.23
03.août		F	W4-			ITA	Fil	Fil	CF W1	C2	1		84.9	18.5	36.5	59.5	42.5	18.0	41.0	17.2		9.5	26.0	16.5	3.1	9.0	15.0	30.0	11.5	372.0	257.0	115.0	54.0	25.5	S2		32.1		3.00	2.24
03.août		F	W4-			ITA	Fil	Fil	CF W1	C2	2		84.8	10.5	35.0	56.5	42.0	24.5	46.0		16.4	9.0	27.0	18.0	4.6	10.0	13.5	30.0	5.7	372.0	257.0	115.0	54.0	25.5	S2		32.2		3.01	2.24
03.août		F	W4-			ITA	Fil	Fil	CF W1	C2	3		85.0	16.0	35.0	55.5	40.0	19.0	39.5	15.5		9.0	26.0	17.0	4.8	9.5	13.5	28.5	8.0	372.0	257.0	115.0	54.0	25.5	S2		32.0		3.00	2.24
03.août		F	W4-			ITA	Fil	Fil	CF W1	C2	4		85.0	17.5	36.5	59.0	41.0	19.0	41.5		14.8	9.4	25.0	15.6	2.5	11.0	14.0	30.0	5.7	372.0	257.0	115.0	54.0	25.5	S2		32.0		3.00	2.24
03.août		F	W4-			ITA	Fil	Fil	CF W1	C2	Average		84.9	15.6	35.8	57.6	41.4	20.1	42.0	16.4	15.6	9.2	26.0	16.8	3.8	9.9	13.9	29.6	7.7	372.0	257.0	115.0	54.0	25.5	S2		32.1		3.00	2.24
03.août		F	W4-			NZL	Fil	Fil	CF W1	C2	1		85.0	17.0	37.8	57.0	41.0	20.8	40.0	17.5		8.5	26.0	17.5	6.1	11.0	14.0	26.0	6.6	372.0	256.0	116.0	55.0	25.5	S2		33.0		2.99	2.20
03.août		F	W4-			NZL	Fil	Fil	CF W1	C2	2		84.9	19.5	37.5	57.0	44.3	19.0	39.5		17.2	9.2	26.2	17.0	4.2	12.0	14.0	27.5	4.2	372.0	256.0	116.0	55.0	25.5	S2		33.1		2.99	2.20
03.août		F	W4-			NZL	Fil	Fil	CF W1	C2	3		84.9	19.6	42.5	64.5	42.7	22.9	44.9	17.0		9.2	26.5	17.3	4.2	11.0	13.0	29.0	4.0	372.0	256.0	116.0	55.0	25.5	S2		33.1		2.99	2.20
03.août		F	W4-			NZL	Fil	Fil	CF W1	C2	4		84.9	22.8	38.0	59.5	43.3	15.2	36.7		16.5	8.3	24.4	16.1	2.8	11.0	13.0	29.0	4.0	372.0	256.0	116.0	55.0	25.5	S2		33.1		2.99	2.20
03.août		F	W4-			NZL	Fil	Fil	CF W1	C2	Average		84.9	19.2	38.7	59.5	42.8	19.5	40.3	17.3	16.9	8.8	25.8	17.0	4.3	11.3	13.5	27.9	4.7	372.0	256.0	116.0	55.0	25.5	S2		33.1		2.99	2.20
03.août		F	W4-			UKR	Fil	Fil	CF W1	C2	1		85.8	21.0	37.0	61.0	44.3	16.0	40.0		16.6	8.7	23.5	14.8	0.1	10.0	13.0	31.5	5.5	371.5	255.5	116.0	55.0	24.5	S2	V	32.2		2.95	2.19
03.août		F	W4-			UKR	Fil	Fil	CF W1	C2	2		85.5	21.3	34.5	58.2	45.0	13.2	36.9	15.0		8.7	25.8	17.1	1.3	9.3	12.5	33.5	5.5	371.5	255.5	116.0	55.0	24.5	S2	V	32.5		2.96	2.19
03.août		F	W4-			UKR	Fil	Fil	CF W1	C2	3		85.5	18.5	36.0	58.8	43.4	17.5	40.3	16.0		8.9	24.5	15.6	2.6	9.7	14.0	28.5	8.7	371.5	255.5	116.0	55.0	24.5	S2	V	32.5		2.96	2.19
03.août		F	W4-			UKR	Fil	Fil	CF W1	C2	4		85.9	19.0	40.0	62.2	43.5	21.0	43.2		16.2	8.6	23.1	14.5	-0.4	10.2	12.5	32.5	4.1	371.5	255.5	116.0	55.0	24.5	S2	V	32.1		2.95	2.19
03.août		F	W4-			UKR	Fil	Fil	CF W1	C2	Average		85.7	20.0	36.9	60.1	44.1	16.9	40.1	15.5	16.4	8.7	24.2	15.5	0.9	9.8	13.0	31.5	5.9	371.5	255.5	116.0	55.0	24.5	S2	V	32.3		2.96	2.19
03.août		F	W4-			USA	Ves	Ves	Al W1	C2	1		85.2	22.5	36.5	57.0	42.0	14.0	34.5		16.2	5.0	23.0	18.0	10.0	11.0	15.0	18.0	12.8	366.0	251.0	115.0	54.0	26.5	F2S		31.8		2.92	2.18
03.août		F	W4-			USA	Ves	Ves	Al W1	C2	2		85.2	20.5	33.5	53.5	42.2	13.0	33.0	15.5		4.6	22.5	17.9	9.9	10.5	14.5	18.0	12.8	366.0	251.0	115.0	54.0	26.5	F2S		31.8		2.92	2.18
03.août		F	W4-			USA	Ves	Ves	Al W1	C2	3		85.2	20.5	37.5	58.3	42.2	16.5	37.3		15.2	4.9	23.4	18.5	10.2	12.5	14.5	18.5	6.2	366.0	251.0	115.0	54.0	26.5	F2S		31.8		2.92	2.18
03.août		F	W4-			USA	Ves	Ves	Al W1	C2	4		85.1	17.9	37.5	56.5	41.8	19.6	38.6	15.6		4.6	22.7	18.1	9.9	11.5	14.0	18.5	7.7	366.0	251.0	115.0	54.0	26.5	F2S		31.9		2.93	2.18
03.août		F	W4-			USA	Ves	Ves	Al W1	C2	Average		85.2	20.5	36.3	56.3	42.1	15.8	35.8	15.6	15.7	4.8	22.9	18.1	10.0	11.4	14.5	18.3	9.9	366.0	251.0	115.0	54.0	26.5	F2S		31.8		2.92	2.18

Date	Boat ID	F/P	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull / Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
01.août		F	M4-	1	06:04.49	GER	Emp	Emp	CF 2	C2	Average	85.2	20.3	37.1	60.3	43.4	16.7	39.9	16.4	16.6	10.7	27.3	16.6	2.9	10.5	13.2	30.1	5.1	372.2	257.2	115.0	51.5	25.0	BB		31.9	-0.2	3.00	2.25	5.49
04.août		P	M4-	2	06:06.73	ESP	Fil	Fil	Al W1		Average	84.6	20.1	39.3	62.6	41.1	19.1	42.5	17.4	18.1	8.5	26.2	17.7	4.4	10.6	14.6	30.4	7.6								0.0	-0.7			5.45
04.août		F	M4-	3	06:07.00	ROU	Fil	Fil	Al W1	Cro	Average	85.5	15.8	36.9	61.0	40.9	21.1	45.3	17.4	17.8	10.5	28.1	17.6	4.2	10.3	13.0	30.5	5.2	376.5	261.5	115.0	55.0	25.5	Sli		31.5	-0.4	3.03	2.27	5.45
04.août		F	M4-	4	06:07.83	BLR	Emp	Emp	Al 3	Bra/C2	Average	85.0	16.4	36.8	59.3	42.0	20.4	43.0	17.4	17.0	10.2	28.0	17.9	4.3	9.8	14.6	30.5	9.3	376.0	260.8	115.0	56.0	25.6	BB/F2S	V	32.2	0.4	3.04	2.26	5.44
04.août		F	M4-	5	06:10.25	SRB	Sch	Sch	CF 2	Cro	Average	84.8	18.3	39.5	64.4	42.2	21.2	46.1	18.0	18.1	11.0	28.1	17.1	3.1	10.9	14.3	31.1	6.2	372.0	257.0	115.0	55.5	25.5	Sli		32.2	-0.1	3.01	2.23	5.40
			M4-	6	06:10.39	CRO	did not measure																																5.40
04.août		F	M4-	7	06:12.79	GRE	Emp	Emp	Al W1	C2	Average	85.4	19.6	39.1	62.5	41.1	19.6	42.9	16.5	16.8	7.4	23.5	16.1	2.9	10.8	14.9	30.1	7.9	374.1	258.9	115.2	54.0	25.5	S2		31.8	-0.1	3.01	2.25	5.36
04.août		P	M4-	8	06:15.30	CAN	Hud	Hud	Al W1		Average	85.1	18.8	39.0	63.0	42.6	20.2	44.2	18.4	19.8	5.8	26.4	20.6	7.1	11.9	16.3	30.0	17.3								0.0	-1.4			5.33
04.août		F	M4-	9	06:18.2	POL	Emp	Emp	Al 3	C2	Average	85.1	14.1	28.6	52.5	44.6	14.6	38.5	16.9	17.4	11.0	28.6	17.7	3.5	11.4	13.4	30.3	3.8	375.0	259.0	116.0	54.0	25.5	S2		33.0	-0.5	3.02	2.23	5.29
04.août		F	M4-	10	06:18.4	GBR	Emp	Emp	Al W1	C2	Average	84.7	16.9	38.1	63.4	40.5	21.3	46.5	16.3	16.0	7.6	27.2	20.1	5.6	10.4	14.0	33.7	6.2	374.0	259.5	114.5	54.0	25.5	S2		31.8	0.0	3.04	2.27	5.29
04.août		F	M4-	11	06:18.5	DEN	Emp	Emp	Al W1		Average	85.0	19.7	32.1	55.1	42.5	12.4	35.4	17.1	17.0	12.0	28.0	16.1	3.3	10.4	13.8	28.5	6.8												5.28
04.août		F	M4-	12	06:21.3	USA	Win	Win	Al W1	Dre	Average	84.6	12.9	32.3	56.0	41.4	19.4	43.1	16.5	16.4	6.0	24.1	18.2	5.29	12.6	15.1	29.3	4.9	371.0	256.0	115.0	53.0	25.0	Apex		32.4	0.0	3.00	2.23	5.24
01.août		F	M4-	13	06:20.4	AUS	Syk	Syk	Al W1	Cro	Average	86.2	14.4	35.3	56.6	42.9	20.9	42.2	17.2	17.3	5.9	22.9	17.0	3.6	10.5	12.6	29.5	4.1	374.8	258.8	116.0	55.5	25.5	Sli		31.8	-0.1	2.98	2.22	5.26
31.juil		F	M4-	14	06:22.6	FRA	Emp	Emp	Al W1		Average	85.5	21.7	39.6	61.5	41.9	17.9	39.8	18.3	17.3	8.6	24.6	17.9	4.4	10.5	13.6	30.4	5.9	376.5	260.5	116.0	64.0	25.5	S2		32.6	1.1	3.03	2.20	5.23
04.août		F	M4-	15	06:23.3	RSA	Fil	Fil	CF W1	C2	Average	84.2	21.9	38.6	60.6	41.4	16.8	38.8	15.9	16.5	8.5	24.5	16.1	2.0	11.9	17.1	31.9	9.5	374.0	258.0	116.0	54.5	25.5	S2		33.8	-0.5	3.04	2.22	5.22
04.août		F	M4-	16	06:26.9	ITA	Fil	Fil	Al W1	C2	Average	85.1	15.1	35.6	59.8	42.4	20.5	44.6	17.5	17.1	7.8	26.0	15.0	1.6	10.8	13.1	29.8	4.6	374.5	258.8	115.7	52.0	25.0	BB		32.6	0.4	3.02	2.25	5.17
04.août		F	M4-	17	06:30.3	BUL	Sch	Sch	Al W1	C2	Average	85.0	15.9	33.6	55.8	42.1	17.8	39.9	17.3	18.3	9.4	27.1	17.7	4.8	13.4	15.1	28.9	3.5	376.0	261.0	115.0	55.5	25.0	BB		32.1	-1.0	3.05	2.27	5.12
Average for class	M4-											85.1	17.6	36.3	59.6	42.1	18.7	42.0	17.1	17.3	8.7	26.3	17.4	3.9	11.0	14.3	30.3	6.7	374.4	259.0	115.4	55.0	25.4			28.0	-0.2	3.02	2.24	5.32
Standard deviation	M4-											0.4	2.8	3.2	3.5	1.0	2.6	3.1	0.7	0.9	2.0	1.9	1.4	1.4	1.0	1.2	1.2	3.3	1.8	1.7	0.5	3.0	0.2			11.4	0.6	0.02	0.02	0.11
% standard deviation	M4-											1%	16%	9%	6%	2%	14%	7%	4%	5%	23%	7%	8%	35%	9%	9%	4%	50%				6%	1%			0.4	-2.7	0.01	0.01	
03.août		F	W4-	1	06:48.8	USA	Ves	Ves	Al W1	C2	Average	85.2	20.5	36.3	56.3	42.1	15.8	35.8	15.6	15.7	4.8	22.9	18.1	10.0	11.4	14.5	18.3	9.9	366.0	251.0	115.0	54.0	26.5	F2S		31.8	0.0	2.92	2.18	4.89
06.août		F	W4-	2	06:50.5	GBR	Emp	Emp	Al 3	C2	Average	85.0	19.8	37.5	58.9	43.8	17.8	39.1	15.7	16.6	10.8	29.3	17.8	4.8	9.2	14.2	29.7	9.8	370.8	255.9	114.8	54.5	25.5	S2		31.8	-1.0	2.99	2.23	4.87
03.août		F	W4-	3	06:51.4	NZL	Fil	Fil	CF W1	C2	Average	84.9	19.2	38.7	59.5	42.8	19.5	40.3	17.3	16.9	8.8	25.8	17.0	4.3	11.3	13.5	27.9	4.7	372.0	256.0	116.0	55.0	25.5	S2		33.1	0.4	2.99	2.20	4.86
03.août		F	W4-	4	06:56.3	ITA	Fil	Fil	CF W1	C2	Average	84.9	15.6	35.8	57.6	41.4	20.1	42.0	16.4	15.6	9.2	26.0	16.8	3.8	9.9	13.9	29.6	7.7	372.0	257.0	115.0	54.0	25.5	S2		32.1	0.8	3.00	2.24	4.80
02.août		F	W4-	5	06:58.8	GER	Emp	Emp	CF 2	C2	Average	85.2	19.8	38.1	59.5	41.9	18.4	39.8	15.7	16.1	10.6	27.3	16.7	2.9	10.2	13.0	31.1	5.3	372.0	256.5	115.0	52.5	25.0	BB		32.3	-0.4	2.99	2.23	4.78
31.juil		F	W4-	6	07:10.2	CAN	Hud	Hud	Al W	C2	Average	85.9	22.9	36.6	57.9	46.5	13.7	35.0	16.5	16.4	5.3	22.3	17.0	3.5	12.3	17.7	28.0	11.3	371.3	255.1	116.1	53.0	25.5	S2		32.3	0.1	2.95	2.20	4.65
02.août		P	W4-	7	06:55.7	AUS	Syk	Syk	Al W1	Cro	Average	84.9	16.0	35.9	64.8	41.9	19.8	48.7	17.3	18.0	7.3	28.7	21.4	7.4	8.7	13.1	31.5	8.1									-0.8			4.81
03.août		F	W4-	8	07:04.2	CZE	Fil	Fil	Al W1	C2	Average	84.9	21.2	32.0	52.1	43.9	10.8	30.9	18.3	17.1	9.3	26.0	16.7	3.1	10.4	15.9	29.5	10.7	374.0	258.0	116.0	55.0	24.5	S2		33.1	1.2	3.02	2.22	4.71
03.août		F	W4-	9	07:06.7	FRA	Fil	Fil	Al W1	C2	Average	85.0	19.7	29.8	54.1	41.4	10.2	34.4	15.2	14.8	8.4	24.7	16.3	4.3	11.3	14.0	27.3	5.8	373.0	258.0	115.0	52.5	25.0	BB		32.0	0.4	3.01	2.25	4.69
03.août		F	W4-	10	07:07.0	BLR	Emp	Emp	Al 3	C2	Average	85.7	16.6	35.3	56.0	40.9	18.7	39.4	17.5	17.0	11.0	27.2	16.2	3.8	12.6	14.1	28.4	3.1	377.0	260.0	117.0	54.0	25.0	S2		33.3	0.5	3.01	2.22	4.68
03.août		F	W4-	11	07:08.7	UKR	Fil	Fil	CF W1	C2	Average	85.7	20.0	36.9	60.1	44.1	16.9	40.1	15.5	16.4	8.7	24.2	15.5	0.9	9.8	13.0	31.5	5.9	371.5	255.5	116.0	55.0	24.5	S2		32.3	-0.9	2.96	2.19	4.67
Average for class	W4-											85.2	19.2	35.7	57.9	42.8	16.5	38.7	16.4	16.4	8.6	25.9	17.3	4.4	10.6	14.3	28.4	7.5	372.0	256.3	115.6	54.0	25.3			32.4	0.0	2.98	2.21	4.77
Standard deviation	W4-											0.4	2.2	2.6	3.4	1.7	3.5	4.7	1.0	1.0	2.1	2.2	1.6	2.4	1.2	1.4	3.7	2.7	2.8	2.4	0.7	1.0	0.6			0.6	0.7	0.03	0.02	0.09
% standard deviation	W4-											0.0	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0			0.0	30.8	0.01	0.01	0.02
																																					0.0			
Differences, Men - Women												-0.1	-1.6	0.6	1.8	-0.7	2.2	3.4	0.7	0.9	0.1	0.5	0.2	-0.5	0.4	0.0	1.9	-0.7	2.4	2.7	-0.3	1.0	0.1			-4.5	-0.2	0.04	0.03	0.55
												0%	-9%	2%	3%	-2%	12%	8%	4%	5%	1%	2%	1%	-13%	4%	0%	6%	-11%	1%	1%	0%	2%	0%			-0.2	1.1	0.01	0.01	0.10

4-

Name	Boat Maker	Rigger Maker	Name	Rigger type	Name	Blade Maker	Name	Blade Shape
Emp	10	10	Al W1	15	C2	18	BB	#REF!
Fil	9	9	Al W	1	Cro	4	S2	#REF!
Win	1	1	CF W	0	Emp	-	F2S	1
Syk	2	2	CF W1	4	Dre	1	Apex	1
Sch	2	2	CF 2	3	Bra	-	ApexR	0
Hud	2	2	Al 3	4	Bra/C2	1	Sli	3
Swi	0	0	Al 2	0			Cle	0
CD	0	0	W(Bo	0			DSn	0
Ves	1	1	W(Bo	0			Sm	0
							BB/F2S	1
missing	1	1	missing	1	Missing	4	Missing	5
Total	28	28	Total	28	Total	28	Total	#REF!
Check	28	28	Check	28	Check	28	Check	28

		1 General Information					Manufacturer's Information and Arc position														4 Relative Height Data							5 Splay				6 Oar data									7 Gearing	
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull / Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing
01.août		F	M4+			AUS	Syk	Syk	Al W1	Cro	1	85.5 13.0	34.0	58.0	44.2	21.0	45.0	18.3		7.7	29.8	22.1	7.4	9.8	13.1	31.7	6.0	375.0	258.0	117.0	55.5	25.5	Sli		33.5		2.99	2.19
01.août		F	M4+			AUS	Syk	Syk	Al W1	Cro	2	85.8 10.2	37.0	61.0	45.6	26.8	50.8		18.2	7.8	28.8	21.0	5.8	10.2	12.7	32.0	4.5	375.0	258.0	117.0	55.5	25.5	Sli		33.2		2.98	2.19
01.août		F	M4+			AUS	Syk	Syk	Al W1	Cro	3	85.9 15.4	37.5	61.5	45.6	22.1	46.1	17.9		7.8	29.0	21.2	6.1	10.2	13.2	31.8	5.4	375.0	258.0	117.0	55.5	25.5	Sli		33.1		2.98	2.19
01.août		F	M4+			AUS	Syk	Syk	Al W1	Cro	4	86.1 15.0	41.0	63.0	42.9	26.0	48.0		17.5	6.5	28.3	21.8	8.0	10.4	12.8	30.5	4.5	375.0	258.0	117.0	55.5	25.5	Sli		32.9		2.97	2.19
01.août		F	M4+			AUS	Syk	Syk	Al W1	Cro	Average	85.8 13.4	37.4	60.9	44.6	24.0	47.5	18.1	17.9	7.5	29.0	21.5	6.8	10.2	13.0	31.5	5.1	375.0	258.0	117.0	55.5	25.5	Sli		33.2		2.98	2.19
02.août		P	M4+			FRA	Fil	Fil	Al W1	C2	1	84.7 16.8	37.0	60.0	42.7	20.2	43.2	17.5		7.0	27.0	20.0						375.2	260.0	115.2	52.5	25.0	BB		32.5		3.05	2.27
02.août		P	M4+			FRA	Fil	Fil	Al W1	C2	2	84.7 20.4	37.0	60.0	43.2	16.6	39.6		17.7	6.6	27.0	20.4						374.8	259.6	115.2	52.5	25.0	BB		32.5		3.04	2.26
02.août		P	M4+			FRA	Fil	Fil	Al W1	C2	3	84.6 22.2	37.0	60.5	43.0	14.8	38.3	16.5		6.7	25.3	18.6						375.2	260.4	114.8	52.5	25.0	BB		32.2		3.05	2.28
02.août		P	M4+			FRA	Fil	Fil	Al W1	C2	4	85.0 20.8	33.0	54.5	42.5	12.2	33.7		16.4	6.8	24.7	17.9						375.0	260.0	115.0	52.5	25.0	BB		32.0		3.04	2.27
02.août		P	M4+			FRA	Fil	Fil	Al W1	C2	Average	84.8 20.1	36.0	58.8	42.9	16.0	38.7	17.0	17.1	6.8	26.0	19.2						375.1	260.0	115.1	52.5	25.0	BB		32.3		3.04	2.27
01.août		F	M4+			GBR	Fil	Fil	Al 3	C2	1	85.6 16.1	35.0	57.0	42.0	18.9	40.9	16.4		6.7	24.7	18.0	4.6	10.5	13.5	30.0	5.7	374.0	258.5	115.5	53.0	25.0	S2		31.9		3.00	2.24
01.août		F	M4+			GBR	Fil	Fil	Al 3	C2	2	85.3 17.6	30.4	54.9	40.0	12.8	37.3		17.1	6.4	25.6	19.2	5.5	9.0	13.0	32.0	7.2	374.0	258.5	115.5	53.0	25.0	S2		32.2		3.01	2.24
01.août		F	M4+			GBR	Fil	Fil	Al 3	C2	3	85.5 16.2	36.0	59.5	39.5	19.8	43.3	16.6		5.5	25.4	19.9	6.8	10.0	13.0	31.0	5.5	374.0	258.5	115.5	53.0	25.0	S2		32.0		3.00	2.24
01.août		F	M4+			GBR	Fil	Fil	Al 3	C2	4	85.8 16.4	38.5	60.7	42.0	22.1	44.3		18.0	6.0	25.0	19.0	5.2	10.0	13.0	31.0	5.5	374.0	258.5	115.5	53.0	25.0	S2		31.7		2.99	2.24
01.août		F	M4+			GBR	Fil	Fil	Al 3	C2	Average	85.6 16.6	35.0	58.0	40.9	18.4	41.5	16.5	17.6	6.2	25.2	19.0	5.5	9.9	13.1	31.0	6.0	374.0	258.5	115.5	53.0	25.0	S2		32.0		3.00	2.24
01.août		F	M4+			GER	Emp	Emp	Al W1	C2	1	85.5 11.8	37.7	59.0	42.0	25.9	47.2	17.6		7.5	25.8	18.3	5.2	12.5	15.9	29.5	6.6	375.5	260.0	115.5	54.0	25.0	S2		32.0		3.02	2.25
01.août		F	M4+			GER	Emp	Emp	Al W1	C2	2	85.3 14.2	34.0	57.6	42.0	19.8	43.4		17.8	7.8	24.6	16.8	4.4	11.5	16.5	28.0	10.2	375.5	260.0	115.5	54.0	25.0	S2		32.2		3.02	2.25
01.août		F	M4+			GER	Emp	Emp	Al W1	C2	3	85.5 12.6	36.0	60.3	40.2	23.4	47.7	18.0		7.4	24.2	16.8	3.9	13.5	15.8	30.0	4.4	375.5	260.0	115.5	54.0	25.0	S2		32.0		3.02	2.25
01.août		F	M4+			GER	Emp	Emp	Al W1	C2	4	85.5 17.9	34.2	58.5	41.7	16.3	40.6		16.9	6.8	25.1	18.3	4.8	13.1	16.0	30.5	5.4	375.5	260.0	115.5	54.0	25.0	S2		32.0		3.02	2.25
01.août		F	M4+			GER	Emp	Emp	Al W1	C2	Average	85.5 14.1	35.5	58.9	41.5	21.4	44.7	17.8	17.4	7.4	24.9	17.6	4.6	12.7	16.1	29.5	6.7	375.5	260.0	115.5	54.0	25.0	S2		32.1		3.02	2.25
02.août		F	M4+			ITA	Fil	Fil	Al W1	C2	1	86.9 19.5	33.9	57.0	39.7	14.4	37.5	17.5		7.0	25.0	18.0	5.7	10.0	13.0	28.9	6.0	376.0	260.0	116.0	52.5	25.0	BB		31.1		2.97	2.25
02.août		F	M4+			ITA	Fil	Fil	Al W1	C2	2	85.7 17.5	38.0	62.8	41.5	20.5	45.3		17.5	7.0	24.0	17.0	3.8	11.0	14.0	30.0	5.7	376.0	260.0	116.0	52.5	25.0	BB		32.3		3.01	2.25
02.août		F	M4+			ITA	Fil	Fil	Al W1	C2	3	85.9 15.0	35.5	58.5	40.0	20.5	43.5	16.5		5.0	23.9	18.9	5.4	13.0	13.5	31.5	0.9	376.0	260.0	116.0	52.5	25.0	BB		32.1		3.00	2.25
02.août		F	M4+			ITA	Fil	Fil	Al W1	C2	4	86.1 17.5	34.0	56.0	40.0	16.5	38.5		17.3	7.0	25.0	18.0	5.4	12.5	13.5	29.5	1.9	376.0	260.0	116.0	52.5	25.0	BB		31.9		3.00	2.25
02.août		F	M4+			ITA	Fil	Fil	Al W1	C2	Average	86.2 17.4	35.4	58.6	40.3	18.0	41.2	17.0	17.4	6.5	24.5	18.0	5.1	11.6	13.5	30.0	3.6	376.0	260.0	116.0	52.5	25.0	BB		31.9		2.99	2.25
02.août		F	M4+			NZL	Fil	Fil	Cf W1	Cro	1	85.4 13.2	33.0	57.5	39.5	19.8	44.3		17.4	6.9	28.0	21.1	6.5	10.0	13.0	34.5	5.0	375.0	259.5	115.5	55.0	25.5	Sli		32.1		3.02	2.24
02.août		F	M4+			NZL	Fil	Fil	Cf W1	Cro	2	85.7 14.0	36.5	60.0	42.0	22.5	46.0	17.4		7.0	27.0	20.0	4.7	10.5	12.5	34.0	4.2	375.0	259.5	115.5	55.0	25.5	Sli		31.8		3.00	2.24
02.août		F	M4+			NZL	Fil	Fil	Cf W1	Cro	3	85.2 17.2	36.5	61.0	42.0	19.3	43.8		16.9	7.0	25.9	18.9	3.7	10.5	12.5	34.0	3.4	375.0	259.5	115.5	55.0	25.5	Sli		32.3		3.02	2.24
02.août		F	M4+			NZL	Fil	Fil	Cf W1	Cro	4	85.4 17.7	32.2	55.0	42.0	14.5	37.3	16.9		7.0	25.9	18.9	4.4	11.0	13.5	32.5	4.4	375.0	259.5	115.5	55.0	25.5	Sli		32.1		3.02	2.24
02.août		F	M4+			NZL	Fil	Fil	Cf W1	Cro	Average	85.4 15.5	34.6	58.4	41.5	19.0	42.9	17.2	17.2	7.0	26.7	19.7	4.8	10.4	12.9	33.8	4.2	375.0	259.5	115.5	55.0	25.5	Sli		32.1		3.01	2.24
02.août		F	M4+			UKR	Fil	Fil	Al W1	C2	1	84.5 15.9	31.3	53.5	42.0	15.4	37.6	16.6		6.0	25.5	19.5	5.7	10.0	13.0	31.0	5.5	376.0	260.0	116.0	54.0	25.5	S2		33.5		3.05	2.24
02.août		F	M4+			UKR	Fil	Fil	Al W1	C2	2	84.5 14.0	36.0	59.0	42.4	22.0	45.0		17.0	6.5	24.0	17.5	3.6	10.0	13.0	31.0	5.5	376.0	260.0	116.0	54.0	25.5	S2		33.5		3.05	2.24
02.août		F	M4+			UKR	Fil	Fil	Al W1	C2	3	84.4 16.2	33.0	57.0	42.0	16.8	40.8	15.8		6.0	24.0	18.0	4.2	10.0	13.5	31.0	6.5	376.0	260.0	116.0	54.0	25.5	S2		33.6		3.06	2.24
02.août		F	M4+			UKR	Fil	Fil	Al W1	C2	4	84.3 15.2	40.0	62.5	40.0	24.8	47.3		16.2	6.4	25.0	18.6	5.1	10.0	13.0	31.5	5.5	376.0	260.0	116.0	54.0	25.5	S2		33.7		3.06	2.24
02.août		F	M4+			UKR	Fil	Fil	Al W1	C2	Average	84.4 15.3	35.1	58.0	41.6	19.8	42.7	16.2	16.6	6.2	24.6	18.4	4.6	10.0	13.1	31.1	5.8	376.0	260.0	116.0	54.0	25.5	S2		33.6		3.06	2.24
02.août		P	M4+			USA	Ves	Ves	Al W1		1	84.8 23.3	35.5	60.0	40.8	12.2	36.7	16.7		8.2	28.5	20.3	6.4	10.8	14.0	32.0	5.7											
02.août		P	M4+			USA	Ves	Ves	Al W1		2	84.9 23.4	38.5	63.5	41.1	15.1	40.1		18.5	8.5	30.5	22.0	8.0	10.0	14.0	32.0	7.7											
02.août		P	M4+			USA	Ves	Ves	Al W1		3	85.0 22.5	42.4	67.0	41.1	19.9	44.5	17.3		8.3	28.5	20.2	6.2	11.0	13.8	32.0	5.0											
02.août		P	M4+			USA	Ves	Ves	Al W1		4	85.0 20.3	39.5	64.0	41.1	19.2	43.7		16.8	8.1	27.7	19.6	5.6	11.0	13.7	32.0	4.8											
02.août		P	M4+			USA	Ves	Ves	Al W1		Average	84.9 22.4	39.0	63.6	41.0	16.6	41.3	17.0	17.7	8.3	28.8	20.5	6.5	10.7	14.0	32.0	5.8											

1 General Information						2 Manufacturer's Information				3 Span and Arc position								4 Relative Height Data						5 Splay				6 Oar data							7 Gearing			8 Veloci
Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
01.août	F		M4+	1	06:21.8	AUS	Syk	Syk	Al W1	Cro	Average		85.8	13.4	37.4	60.9	44.6	24.0	47.5	18.1	17.9	7.5	29.0	21.5	6.8	10.2	13.0	31.5	5.1	375.0	258.0	117.0	55.5	25.5	Sli		33.2	0.3	2.98	2.19	5.24
02.août	F		M4+	2	06:23.1	NZL	Fil	Fil	Cf W1	Cro	Average		85.4	15.5	34.6	58.4	41.5	19.0	42.9	17.2	17.2	7.0	26.7	19.7	4.8	10.4	12.9	33.8	4.2	375.0	259.5	115.5	55.0	25.5	Sli		32.1	0.0	3.04	2.27	5.22
02.août	F		M4+	3	06:23.7	ITA	Fil	Fil	Al W1	C2	Average		86.2	17.4	35.4	58.6	40.3	18.0	41.2	17.0	17.4	6.5	24.5	18.0	5.1	11.6	13.5	30.0	3.6	376.0	260.0	116.0	52.5	25.0	BB		31.9	-0.4	3.04	2.27	5.21
01.août	F		M4+	4	06:24.4	UKR	Fil	Fil	Al W1	C2	Average		84.4	15.3	35.1	58.0	41.6	19.8	42.7	16.2	16.6	6.2	24.6	18.4	4.6	10.0	13.1	31.1	5.8	376.0	260.0	116.0	54.0	25.5	S2		33.6	-0.4	3.00	2.24	5.20
02.août	F		M4+	5	06:26.2	GER	Emp	Emp	Al W1	C2	Average		85.5	14.1	35.5	58.9	41.5	21.4	44.7	17.8	17.4	7.4	24.9	17.6	4.6	12.7	16.1	29.5	6.7	375.5	260.0	115.5	54.0	25.0	S2		32.1	0.4	3.05	2.28	5.18
02.août	F		M4+	6	06:30.6	GBR	Fil	Fil	Al 3	C2	Average		85.6	16.6	35.0	58.0	40.9	18.4	41.5	16.5	17.6	6.2	25.2	19.0	5.5	9.9	13.1	31.0	6.0	374.0	258.5	115.5	53.0	25.0	S2		32.0	-1.1	3.04	2.26	5.12
				7	06:32.3	SRB	did not measure																																	5.10
01.août	P		M4+	8	06:33.2	USA	Ves	Ves	Al W1		Average		84.9	22.4	39.0	63.6	41.0	16.6	41.3	17.0	17.7	8.3	28.8	20.5	6.5	10.7	14.0	32.0	5.8												5.09
02.août	P		M4+	9	06:35.6	FRA	Fil	Fil	Al W1	C2	Average		84.8	20.1	36.0	58.8	42.9	16.0	38.7	17.0	17.1	6.8	26.0	19.2						375.1	260.0	115.1	52.5	25.0	BB		32.3	0.0	3.05	2.27	5.06
Average for class			M4+										85.3	16.8	36.0	59.4	41.8	19.1	42.5	17.1	17.3	7.0	26.2	19.2	5.4	10.8	13.7	31.3	5.3	375.2	259.4	115.8	53.8	25.2			32.4	-0.2	3.03	2.26	5.16
Standard deviation													0.6	3.0	1.5	1.9	1.3	2.6	2.6	0.6	0.4	0.7	1.8	1.3	0.9	1.0	1.1	1.4	1.1	0.7	0.8	0.6	1.2	0.3			0.7	0.5	0.03	0.03	0.07
% standard deviation			M4+										1%	18%	4%	3%	3%	14%	6%	4%	2%	10%	7%	7%	17%	9%	8%	4%	20%	0%	0%	1%	2%	1%			2%		0.01	0.01	0.01

4+

Name	Boat Maker	Rigger Maker	Name	Rigger type	Name	Blade Maker	Name	Blade Shape
Emp	1	1	Al W1	6	C2	5	BB	####
Fil	5	5	Al W	0	Cro	2	S2	####
Win	0	0	CF W	0	Emp	-	F2S	0
Syk	1	1	CF W1	1	Dre	-	Apex	0
Sch	0	0	CF 2	0	Bra	-	ApexR	0
Hud	0	0	Al 3	1	Bra/C2	-	Sli	2
Swi	0	0	Al 2	0			Cle	0
CD	0	0	Al W(Bow	0			DSn	0
Ves	1	1	F W(Bow	0			Sm	0
							Bra/F2	0
missing	1	1	missing	1	Missing	2	Missing	2
Total	9	9	Total	9	Total	9	Total	#REF!
Check	9	9	Check	9	Check	9	Check	9

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	1		83.5	11.4	23.0	47.5	39.9	11.6	36.1	18.3		13.4	31.3	17.9	4.2	11.0	14.0	32.0	5.4	376.5	261.5	115.0	55.0	25.5	Sli		33.5		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	2		85.0	11.5	33.0	55.0	44.5	21.5	43.5		19.2	13.1	33.0	19.9	4.5	9.5	15.0	33.0	9.6	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	3		85.0	7.7	25.0	48.5	43.0	17.3	40.8	19.9		13.4	31.9	18.5	4.2	11.0	15.0	31.5	7.3	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	4		85.0	13.0	26.0	49.0	46.3	13.0	36.0		19.0	13.5	33.0	19.5	3.1	11.0	13.0	34.0	3.4	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	5		85.0	16.2	34.5	51.5	43.8	18.3	35.3	19.7		13.8	33.3	19.5	4.8	10.5	15.0	32.0	8.1	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	6		84.6	13.7	38.0	62.0	44.0	24.3	48.3		19.7	13.5	33.3	19.8	4.5	11.5	13.5	33.0	3.5	376.5	261.5	115.0	55.0	25.5	Sli		32.4		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	7		85.0	13.8	30.0	53.5	43.5	16.2	39.7	19.0		13.6	33.1	19.5	5.8	10.0	13.5	30.0	6.7	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
03.août		F	M8+			CZE	Emp	Emp	Al 3	Cro	8		85.0	12.0	28.0	51.0	46.5	16.0	39.0		19.0	13.2	31.7	18.5	4.0	11.0	15.0	30.0	7.6	376.5	261.5	115.0	55.0	25.5	Sli		32.0		0.73
Average for boat		F	M8+			CZE	Emp	Emp	Al 3	Cro	average		84.8	12.4	29.7	52.3	43.9	17.3	39.8	19.2	19.2	13.4	32.6	19.1	4.4	10.7	14.3	31.9	6.4	376.5	261.5	115.0	55.0	25.5	Sli		32.2		0.7
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	1		84.0	14.1	30.0	52.0	42.3	15.9	37.9	18.3		10.0	28.2	18.2	4.8	12.5	16.5	30.0	7.6	375.0	261.3	113.7	54.5	25.5	S2		31.7		0.73
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	2		83.9	16.2	35.5	57.8	42.5	19.3	41.6		18.2	10.5	28.1	17.6	3.7	13.0	16.5	31.0	6.5	375.0	261.0	114.0	54.5	25.5	S2		32.1		0.73
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	3		84.2	14.5	36.0	59.0	43.5	21.5	44.5	18.3		10.4	28.8	18.4	4.2	13.5	16.5	31.0	5.5	374.5	260.0	114.5	54.5	25.5	S2		32.3		3.06
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	4		86.9	16.3	37.5	58.7	45.5	21.2	42.4		18.0	10.5	30.0	19.5	4.8	13.0	17.0	31.0	7.4	374.3	260.3	114.0	54.5	25.5	S2		29.1		2.97
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	5		84.5	15.6	35.5	57.5	44.3	19.9	41.9	19.0		10.5	28.5	18.0	4.3	13.0	16.5	29.5	6.8	375.0	261.0	114.0	54.5	25.5	S2		31.5		3.07
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	6		84.2	16.5	37.5	58.0	44.5	21.0	41.5		18.0	10.5	29.4	18.9	5.1	12.0	16.0	29.5	7.8	374.5	260.5	114.0	54.5	25.5	S2		31.8		3.07
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	7		84.2	17.0	37.0	58.8	43.0	20.0	41.8	18.5		10.5	27.0	16.5	3.1	11.5	16.0	29.5	8.7	375.0	261.0	114.0	54.5	25.5	S2		31.8		3.08
02.août		F	M8+			ESP	Emp	Emp	Al W1	C2	8		84.0	20.0	39.5	61.5	42.0	19.5	41.5		17.7	10.5	25.8	15.3	1.9	13.0	17.0	30.0	7.6	374.5	260.0	114.5	54.5	25.5	S2		32.5		3.07
Average for boat		F	M8+			ESP	Emp	Emp	Al W1	C2	average		84.5	16.3	36.1	57.9	43.5	19.8	41.6	18.5	18.0	10.4	28.2	17.8	4.0	12.7	16.5	30.2	7.3	374.7	260.6	114.1	54.5	25.5	S2		31.6		2.5
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	1		84.0	12.2	30.0	53.0	41.5	17.8	40.8	16.8		11.2	29.3	18.1	4.4	12.0	14.9	31.0	5.4	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	2		84.0	14.0	27.0	51.0	41.1	13.0	37.0		17.1	11.4	28.3	16.9	3.3	12.0	15.4	31.0	6.3	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	3		84.0	14.5	31.5	55.5	40.8	17.0	41.0	17.7		11.4	28.8	17.4	3.9	12.0	15.0	31.0	5.5	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	4		84.0	17.5	30.5	55.0	41.5	13.0	37.5		17.8	11.4	28.4	17.0	3.3	12.0	15.2	31.0	5.9	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	5		84.0	14.0	33.0	57.2	42.8	19.0	43.2	17.9		11.4	29.9	18.5	4.0	12.0	14.2	32.0	3.9	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	6		84.0	10.8	36.0	51.0	39.3	25.2	40.2		18.0	11.3	29.0	17.7	4.2	12.0	14.8	32.0	5.0	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	7		84.0	12.5	31.0	54.5	43.2	18.5	42.0	18.0		11.3	29.0	17.7	3.5	12.0	14.4	31.1	4.4	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
01.août		F	M8+			GBR	Emp	Emp	Al W1	C2	8		84.0	13.0	38.0	61.5	43.6	25.0	48.5		17.6	11.5	29.5	18.0	3.3	12.0	14.2	32.0	3.9	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.07
Average for boat		F	M8+			GBR	Emp	Emp	Al W1	C2	average		84.0	13.6	32.1	54.8	41.7	18.6	41.3	17.6	17.6	11.4	29.0	17.7	3.8	12.0	14.8	31.4	5.1	374.0	260.0	114.0	54.0	25.5	S2	V	32.0		3.1
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	1		83.8	17.3	33.5	56.5	44.0	16.2	39.2	18.3		10.0	28.9	18.9	5.0	12.0	16.0	30.0	7.6	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		2.99
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	2		83.8	17.0	36.0	55.2	46.2	19.0	38.2		18.5	9.9	29.5	19.6	5.7	13.0	16.3	29.0	6.5	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		2.99
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	3		83.8	18.2	38.5	61.5	45.1	20.3	43.3	18.8		9.7	30.5	20.8	5.2	12.0	15.0	33.0	5.2	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		2.99
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	4		84.0	17.0	37.3	60.6	45.8	20.3	43.6		17.9	10.0	31.3	21.3	6.5	12.5	16.5	31.0	7.4	367.0	252.7	114.3	54.0	25.5	S2	V	32.3		2.98
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	5		83.8	17.0	40.3	59.9	48.6	23.3	42.9	18.4		9.8	31.5	21.7	6.0	13.0	16.0	31.5	5.5	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		2.99
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	6		83.9	17.6	42.3	61.8	46.0	24.7	44.2		19.0	10.0	30.0	20.0	10.6	13.0	16.6	19.7	10.5	367.0	252.7	114.3	54.0	25.5	S2	V	32.4		2.99
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	7		83.7	19.3	42.9	62.7	46.5	23.6	43.4	19.1		9.9	28.6	18.7	3.0	11.2	15.2	32.5	7.1	367.0	252.7	114.3	54.0	25.5	S2	V	32.6		3.00
01.août		F	M8+			GER	Emp	Emp	Al W1	C2	8		83.8	19.0	40.4	60.6	43.8	21.4	41.6		19.0	10.0	27.0	17.0	3.9	11.5	16.0	28.5	9.1	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		2.99
Average for boat		F	M8+			GER	Emp	Emp	Al W1	C2	average		83.8	17.8	38.9	59.9	45.8	21.1	42.1	18.7	18.6	9.9	29.7	19.8	5.7	12.3	16.0	29.4	7.4	367.0	252.7	114.3	54.0	25.5	S2	V	32.5		3.0

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	1	84.3	21.5	40.5	63.5	44.8	19.0	42.0	17.6		10.0	28.0	18.0	3.7	12.0	17.0	30.5	9.4	376.0	260.5	115.5	54.0	25.5	S2		33.2		3.07
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	2	84.5	19.5	39.0	59.5	44.6	19.5	40.0		18.0	11.0	26.9	15.9	1.9	13.0	16.0	30.0	5.7	376.0	260.5	115.5	54.0	25.5	S2		33.0		3.06
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	3	84.4	21.0	39.5	63.5	44.6	18.5	42.5	17.9		9.8	27.0	17.2	2.3	12.0	17.0	32.0	9.0	376.0	260.5	115.5	54.0	25.5	S2		33.1		3.06
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	4	84.3	18.5	39.5	62.0	45.0	21.0	43.5		17.6	10.9	28.3	17.4	1.9	11.0	16.5	33.0	9.6	376.0	260.5	115.5	54.0	25.5	S2		33.2		3.07
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	5	84.3	20.5	42.5	65.5	45.8	22.0	45.0	17.8		9.5	28.0	18.5	3.2	12.5	17.0	32.0	8.1	376.0	260.5	115.5	54.0	25.5	S2		33.2		3.07
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	6	84.4	18.3	41.0	65.0	44.0	22.7	46.7		17.9	11.0	30.0	19.0	4.2	11.5	17.0	32.0	9.9	376.0	260.5	115.5	54.0	25.5	S2		33.1		3.06
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	7	84.5	23.0	42.0	65.5	42.5	19.0	42.5	19.5		11.0	28.0	17.0	3.1	11.0	16.5	31.0	10.2	376.0	260.5	115.5	54.0	25.5	S2		33.0		3.06
03.août		F	M8+			ITA	Fil	Fil	Al W1	C2	8	84.1	20.5	43.2	66.0	43.5	22.7	45.5		19.4	11.0	30.0	19.0	4.4	11.5	17.0	32.0	9.9	376.0	260.5	115.5	54.0	25.5	S2		33.4		3.07
Average for boat		F	M8+			ITA	Fil	Fil	Al W1	C2	average	84.4	20.4	40.9	63.8	44.4	20.6	43.5	18.2	18.2	10.5	28.3	17.8	3.1	11.8	16.8	31.6	9.0	376.0	260.5	115.5	54.0	25.5	S2		33.2		3.1
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	1	86.0	23.5	41.5	63.3	43.2	18.0	39.8	17.3		10.5	30.2	19.7	5.3	10.5	12.5	31.5	3.6	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.00
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	2	86.0	21.0	43.0	65.0	43.2	22.0	44.0		17.4	10.5	30.8	20.3	5.9	10.5	13.0	31.5	4.5	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.00
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	3	86.0	19.5	43.5	66.3	43.7	24.0	46.8	17.7		10.5	32.4	21.9	7.2	10.0	13.0	32.0	5.4	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.00
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	4	86.3	21.0	44.0	66.6	44.2	23.0	45.6		17.2	10.5	32.3	21.8	7.2	10.3	13.0	31.5	4.9	376.0	260.0	116.0	54.0	25.5	S2		31.7		2.99
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	5	85.6	21.5	40.0	63.5	43.6	18.5	42.0	18.4		10.5	32.5	22.0	7.3	10.1	12.5	32.0	4.3	376.0	260.0	116.0	54.0	25.5	S2		32.4		3.01
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	6	86.0	21.7	45.0	66.8	43.0	23.3	45.1		18.6	10.5	30.2	19.7	5.2	10.3	13.0	32.0	4.8	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.00
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	7	86.2	21.5	40.0	63.0	42.6	18.5	41.5	18.1		10.6	30.5	19.9	5.5	10.5	12.5	32.0	3.6	376.0	260.0	116.0	54.0	25.5	S2		31.8		2.99
03.août		F	M8+			RUS	Fil	Fil	Al W1	C2	8	86.0	21.5	37.5	59.2	43.7	16.0	37.7		17.1	10.4	31.3	20.9	6.4	10.2	12.0	31.5	3.3	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.00
Average for boat		F	M8+			RUS	Fil	Fil	Al W1	C2	average	86.0	21.4	41.8	64.2	43.4	20.4	42.8	17.9	17.6	10.5	31.3	20.8	6.2	10.3	12.7	31.8	4.3	376.0	260.0	116.0	54.0	25.5	S2		32.0		3.0
31.juil	VUAJG156	F	M8+			USA	Ves	Ves	Al W1	C2	1	84.1	17.3	34.3	59.3	41.5	17.0	42.0	17.9		8.7	29.5	20.8	6.9	11.0	13.1	31.4	3.8	374.0	260.0	114.0	54.0	25.5	S2		31.9		3.07
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	2	83.9	15.9	37.4	61.2	42.0	21.5	45.3		17.7	8.7	29.7	21.0	6.5	12.5	14.1	32.5	2.8	374.0	260.0	114.0	54.0	25.5	S2		32.1		3.08
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	3	84.2	18.8	37.6	62.1	42.0	18.8	43.3	17.0		8.7	29.2	20.5	6.0	11.0	14.0	32.5	5.3	374.0	260.0	114.0	54.0	25.5	S2		31.8		3.06
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	4	83.9	17.8	35.3	61.3	40.0	17.5	43.5		17.0	8.8	29.2	20.4	6.7	12.0	13.5	32.0	2.7	374.0	260.0	114.0	54.0	25.5	S2		32.1		3.08
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	5	84.2	18.2	35.7	59.5	40.5	17.5	41.3	17.5		8.7	29.3	20.6	7.0	12.0	13.5	31.5	2.7	374.0	260.0	114.0	54.0	25.5	S2		31.8		3.06
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	6	84.1	19.6	36.5	60.5	40.5	16.9	40.9		16.5	8.7	29.0	20.3	6.5	11.0	14.0	32.0	5.4	374.0	260.0	114.0	54.0	25.5	S2		31.9		3.07
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	7	84.2	18.3	35.5	59.5	41.5	17.2	41.2	16.5		8.7	29.6	20.9	6.6	11.5	13.5	32.5	3.5	374.0	260.0	114.0	54.0	25.5	S2		31.8		3.06
31.juil		F	M8+			USA	Ves	Ves	Al W1	C2	8	84.1	18.9	35.6	60.5	41.5	16.7	41.6		18.5	8.9	29.0	20.1	6.4	12.0	13.5	31.0	2.8	374.0	260.0	114.0	54.0	25.5	S2		31.9		3.07
Average for boat		F	M8+			USA	Ves	Ves	Al W1	C2	average	84.1	18.1	36.0	60.5	41.2	17.9	42.4	17.2	17.4	8.7	29.3	20.6	6.6	11.6	13.7	31.9	3.6	374.0	260.0	114.0	54.0	25.5	S2		31.9		3.1
Average for class			M8+									84.5	17.1	36.5	59.1	43.4	19.4	41.9	18.2	18.1	10.7	29.8	19.1	4.8	11.6	14.9	31.2	6.1	374.0	259.3	114.7	54.2	25.5			32.2		2.6
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	1	84.0	19.2	35.0	56.0	44.8	15.8	36.8	16.6		8.6	26.2	17.6	4.3	13.0	17.5	28.5	9.1	373.5	258.0	114.5	54.0	25.5	S2	V	32.5		3.05
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	2	84.0	20.7	36.0	58.5	42.5	15.3	37.8		15.2	9.0	23.3	14.3	0.8	14.5	19.5	30.0	9.6	373.5	258.0	114.5	54.0	25.5	S2	V	32.5		3.05
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	3	84.0	12.4	34.5	56.0	42.3	22.1	43.6	17.0		8.8	26.5	17.7	3.9	13.5	19.5	31.0	11.1	373.5	258.0	114.5	54.0	25.5	S2	V	32.5		3.05
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	4	84.2	18.0	32.0	52.5	44.0	14.0	34.5		16.7	8.5	25.0	16.5	2.9	14.0	16.5	29.5	4.9	373.5	258.0	114.5	54.0	25.5	S2	V	32.3		3.04
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	5	84.3	15.0	30.5	52.5	45.5	15.5	37.5	17.1		8.7	27.5	18.8	4.5	14.0	16.0	30.0	3.8	373.5	258.0	114.5	54.0	25.5	S2	V	32.2		3.04
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	6	84.2	15.0	33.0	53.5	44.5	18.0	38.5		17.0	8.5	25.5	17.0	3.2	14.0	16.5	29.5	4.9	373.5	258.0	114.5	54.0	25.5	S2	V	32.3		3.04
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	7	84.1	17.4	30.4	50.5	44.8	13.0	33.1	17.0		8.5	23.4	14.9	0.4	12.5	15.5	31.0	5.5	373.5	258.0	114.5	54.0	25.5	S2	V	32.4		3.04

Date	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing
02.août		F	W8+			GER	Emp	Emp	Al W1	C2	8	84.3	19.0	35.0	56.0	45.5	16.0	37.0		17.0	9.0	23.2	14.2	-0.1	14.0	16.5	30.0	4.8	373.5	258.0	114.5	54.0	25.5	S2	V	32.2		3.04
Average for boat		F	W8+			GER	Emp	Emp	Al W1	C2	average	84.1	17.1	33.3	54.4	44.2	16.2	37.4	16.9	16.5	8.7	25.1	16.4	2.5	13.7	17.2	29.9	6.7	373.5	258.0	114.5	54.0	25.5	S2	V	32.4		3.0
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	1	85.2	20.2	33.5	54.0	41.0	13.3	33.8	15.2		10.9	29.0	18.1	6.3	12.0	14.0	27.0	4.2	373.5	258.5	115.0	55.0	25.5	Sli		31.8		3.01
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	2	85.2	22.5	38.0	59.0	41.0	15.5	36.5		15.1	10.9	29.0	18.1	6.3	12.0	14.0	27.0	4.2	373.5	258.5	115.0	55.0	25.5	Sli		31.8		3.01
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	3	85.6	19.0	38.0	57.0	40.3	19.0	38.0	15.3		10.8	27.0	16.2	4.6	11.0	14.0	27.0	6.4	373.0	258.0	115.0	55.0	25.5	Sli		31.4		2.99
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	4	85.4	19.9	38.0	59.0	42.1	18.1	39.1		15.4	10.7	28.8	18.1	6.1	10.0	14.0	27.0	8.5	373.0	258.0	115.0	55.0	25.5	Sli		31.6		3.00
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	5	85.1	18.2	36.0	57.0	41.7	17.8	38.8	15.5		10.8	28.5	17.7	5.7	11.0	14.0	27.0	6.4	373.0	258.0	115.0	55.0	25.5	Sli		31.9		3.01
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	6	85.4	17.8	39.5	60.0	41.5	21.7	42.2		15.9	11.0	27.0	16.0	4.1	12.0	13.0	27.0	2.1	373.0	258.0	115.0	55.0	25.5	Sli		31.6		3.00
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	7	85.5	20.1	37.0	57.5	39.8	16.9	37.4	15.5		10.8	28.0	17.2	5.7	11.0	14.0	27.0	6.4	373.0	258.0	115.0	55.0	25.5	Sli		31.5		2.99
02.août		F	W8+			ROU	Fil	Fil	Al W1	Cro	8	85.2	20.3	36.5	58.0	40.5	16.2	37.7		15.6	10.9	27.0	16.1	4.4	12.0	14.0	27.0	4.2	373.0	258.0	115.0	55.0	25.5	Sli		31.8		3.00
Average for boat		F	W8+			ROU	Fil	Fil	Al W1	Cro	average	85.3	19.8	37.1	57.7	41.0	17.3	37.9	15.4	15.5	10.9	28.0	17.2	5.4	11.4	13.9	27.0	5.3	373.1	258.1	115.0	55.0	25.5	Sli		31.7		3.0
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	1	84.0				42.3	0.0	0.0	16.9		6.5	25.5	19.0	5.6	11.0	14.0	30.0	5.7	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	2	84.0				42.7	0.0	0.0		16.8	6.6	24.8	18.2	4.6	12.0	14.0	30.0	3.8	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	3	84.0				41.9	0.0	0.0	16.7		6.7	25.3	18.6	5.3	12.0	14.0	30.0	3.8	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	4	84.0				41.8	0.0	0.0		14.2	5.3	24.1	18.8	5.5	12.0	14.0	30.0	3.8	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	5	84.0	22.1	38.5	60.5	42.0	16.4	38.4	16.6		6.8	25.1	18.3	4.9	12.0	14.0	30.0	3.8	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	6	84.0				43.1	0.0	0.0		16.6	6.6	26.5	19.9	6.2	12.4	14.0	30.0	3.1	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	7	84.0				43.1	0.0	0.0	16.8		6.8	25.1	18.3	4.6	11.0	13.8	30.0	5.3	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
31.juil		P	W8+			USA	Ves	Ves	Al W1	Dre	8	84.0				45.9	0.0	0.0		16.1	6.8	25.5	18.7	4.4	10.4	14.0	30.0	6.9	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.05
Average for boat		P	W8+			USA	Ves	Ves	Al W1	Dre	average	84.0	22.1	38.5	60.5	42.9	2.1	4.8	16.8	15.9	6.5	25.2	18.7	5.1	11.6	14.0	30.0	4.5	372.0	257.8	114.2	53.0	25.0	Apex		32.2		3.0
Average for class			W8+									84.5	19.6	36.3	57.5	42.7	11.9	26.7	16.4	16.0	8.7	26.1	17.4	4.3	12.2	15.0	29.0	5.5	372.9	258.0	114.6	54.0	25.3			32.1		3.0

	Boat ID	Full/Partial Survey (F/P)	Boat type / Event	Finish Position	Time (mm:sec.00)	Country	Boat Make	Rigger Make	Rigger Type	Blade Make	Position in Boat	Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
Average for boat		F	M8+	1	05:41.83	ITA	Fil	Fil	Al W1	C2			84.4	20.4	40.9	63.8	44.4	20.6	43.5	18.2	18.2	10.5	30.0	19.5	4.8	11.8	16.8	31.6	9.0	376.0	260.5	115.5	54.0	25.5	S2		33.2	0.0	3.06	2.26	5.85
Average for boat		F	M8+	2	05:44.54	GBR	Emp	Emp	Al W1	C2			84.0	13.6	32.1	54.8	41.7	18.6	41.3	17.6	17.6	11.4	28.1	17.6	3.7	12.0	14.8	31.4	5.0	374.0	260.0	114.0	54.0	25.5	S2	V	32.0	0.0	3.07	2.29	5.80
Average for boat		F	M8+	3	05:46.04	GER	Emp	Emp	Al W1	C2			83.8	17.8	38.9	59.9	45.8	21.1	42.1	18.7	18.6	9.9	28.8	18.4	4.2	12.3	16.0	29.4	7.2	367.0	252.7	114.3	54.0	25.5	S2	V	32.5	0.0	2.99	2.21	5.78
Average for boat		F	M8+	4	05:48.62	ESP	Emp	Emp	Al W1	C2			84.5	16.3	36.1	57.9	43.5	19.8	41.6	18.5	18.0	10.4	28.2	18.2	4.8	12.7	16.5	30.2	7.2	374.7	260.6	114.1	54.5	25.5	S2		31.6	0.5	3.06	2.29	5.74
Average for boat		F	M8+	5	05:50.78	USA	Ves	Ves	Al W1	C2			84.1	18.1	36.0	60.5	41.2	17.9	42.4	17.2	17.4	8.7	29.3	20.6	6.6	11.6	13.7	31.9	3.6	374.0	260.0	114.0	54.0	25.5	S2		31.9	-0.2	3.07	2.27	5.70
Average for boat		F	M8+	6	05:57.31	CZE	Emp	Emp	Al 3	Cro			84.8	12.4	29.7	52.3	43.9	17.3	39.8	19.2	19.2	13.4	32.6	19.1	4.4	10.7	14.3	31.9	6.4	376.5	261.5	115.0	55.0	25.5	Sli		32.2	0.0	3.06	2.27	5.70
Average for boat		F	M8+	7	05:53.27	RUS	Fil	Fil	Al W1	C2			86.0	21.4	41.8	64.2	43.4	20.4	42.8	17.9	17.6	10.5	31.3	20.8	6.2	10.3	12.7	31.8	4.3	376.0	260.0	116.0	54.0	25.5	S2		32.0	0.3	3.00	2.24	5.60
Average for class			M8+										84.5	17.1	36.5	59.1	43.4	19.4	41.9	18.2	18.1	10.7	29.8	19.2	4.9	11.6	14.9	31.2	6.1	374.0	259.3	114.7	54.2	25.5			32.2	0.1	3.05	2.26	5.75
Standard deviation			M8+										0.7	3.1	4.1	4.1	1.4	1.4	1.1	0.6	0.6	1.3	1.5	1.1	1.0	0.8	1.4	0.9	1.7	3.0	2.8	0.7	0.4	0.0			0.5	0.2	0.03	0.03	0.08
% standard deviation			M8+										0.8%	17.9%	11.3%	6.9%	3.3%	7.0%	2.6%	3.5%	3.3%	12.5%	5.2%	5.8%	20.1%	6.8%	9.5%	2.9%	28.5%	0.8%	1.1%	0.7%	0.7%	0.0%			1.4%		0.01	0.01	0.01
																		0.0	0.0																				0.0			
Average for boat		F	W8+	1	06:20.16	GER	Emp	Emp	Al W1	C2			84.1	17.1	33.3	54.4	44.2	16.2	37.4	16.9	16.5	8.7	25.1	16.4	2.5	13.7	17.2	29.9	6.7	373.5	258.0	114.5	54.0	25.5	S2	V	32.4	0.4	3.04	2.26	5.26
Average for boat		F	W8+	2	06:23.66	ROU	Fil	Fil	Al W1	Cro			85.3	19.8	37.1	57.7	41.2	17.3	37.9	15.4	15.5	10.9	28.0	17.2	5.3	11.4	13.9	29.7	5.0	373.1	258.1	115.0	55.0	25.5	Sli		31.7	-0.1	3.00	2.24	5.21
Average for boat		P	W8+	3	06:23.28	USA	Ves	Ves	Al W1	Dre			84.0	22.1	38.5	60.5	42.9	16.4	38.4	16.8	15.9	6.5	25.2	18.7	5.1	11.6	14.0	30.0	4.5	372.0	257.8	114.2	53.0	25.0	Apex		32.2	0.8	3.05	2.27	5.22
Average for class			W8+										84.5	19.6	36.3	57.5	42.7	16.6	37.9	16.4	16.0	8.7	26.1	17.4	4.3	12.2	15.0	29.0	5.5	372.9	258.0	114.6	54.0	25.3			32.1	0.4	3.03	2.25	5.23
Standard deviation			W8+										0.7	2.5	2.7	3.0	1.6	0.6	0.5	0.8	0.5	2.2	1.7	1.2	1.6	1.3	1.9	1.7	1.1	0.8	0.2	0.4	1.0	0.3			0.36	0.47	0.02	0.01	0.03
% standard deviation			W8+										0.9%	12.8%	7.4%	5.3%	3.8%	3.5%	1.4%	5.2%	3.1%	25.0%	6.4%	6.8%	37.2%	10.4%	12.6%	5.9%	19.9%	0.2%	0.1%	0.4%	1.9%	1.1%			1.1%	123.0%	1%	1%	1%
Differences, Men - Women													0.0	-2.5	0.2	1.5	0.7	2.7	4.0	1.8	2.1	2.0	3.6	1.7	0.6	-0.6	-0.1	2.2	0.6	1.2	1.4	0.1	0.2	0.2			0.115	-0.293	0.02	0.01	0.51
													0%	-15%	1%	3%	2%	14%	10%	10%	12%	19%	12%	9%	12%	-5%	-1%	7%	10%	0%	1%	0%	0%	1%			0.4%		0.01	0.00	0.09

men have higher swivels, seats lower in the boat, and heels much lower and slightly more foot splay.
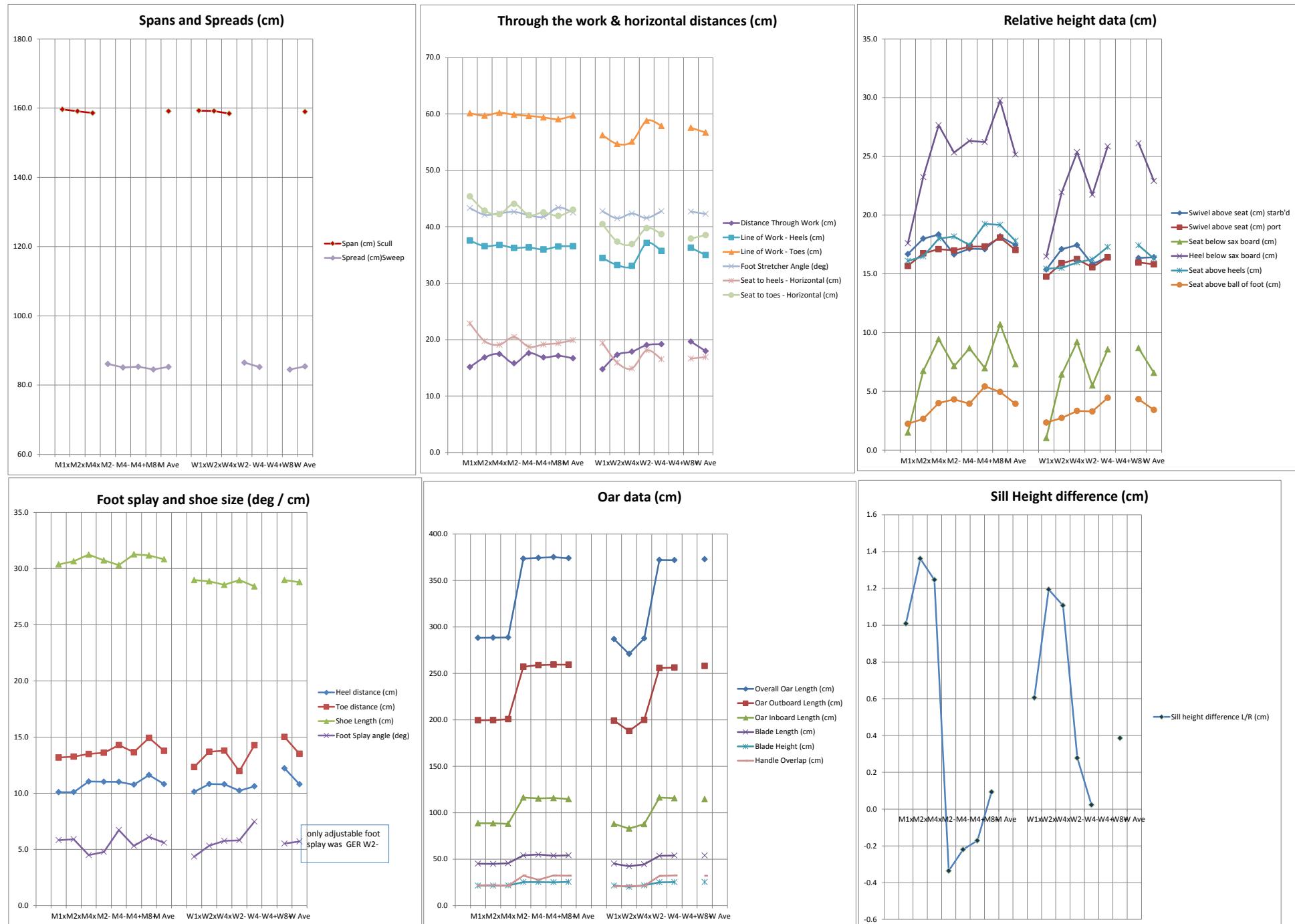women have bigger distance through the work

the most variable settings for both are: seat above ball of foot, splay degrees, seat below sax board and distance through the work

seat above ball of foot is calculated making the assumption that the shoes fit and that the ball of the foot is two thirds of the shoe length from the heel

8+

Name	Boat Maker	Rigger Maker	Name	Rigger type	Name	Blade Maker	Name	Blade Shape
Emp	5	5	Al W1	9	C2	7	BB	####
Fil	3	3	Al W	0	Cro	2	S2	####
Win	0	0	CF W	0	Emp	-	F2S	0
Syk	0	0	CF W1	0	Dre	1	Apex	1
Sch	0	0	CF 2	0	Bra	-	ApexF	0
Hud	0	0	Al 3	1	Bra/C2	-	Sli	2
Swi	0	0	Al 2	0			Cle	0
CD	0	0	W(Bow)	0			DSn	0
Ves	2	2	F W(Bow)	0			Sm	0
							Bra/F...	
missing	0	0	missing	0	Missing	-	Missing	0
Total	10	10	Total	10	Total	10	Total	#REF!
Check	10	10	Check	10	Check	10	Check	10

Averages by boat and class

		3 Span and Arc position								4 Relative Height Data						5 Splay				6 Oar data									7 Gearing		8 Veloc
Date / Boat type / Event		Span (cm) Scull	Spread (cm) Sweep	Distance Through Work (cm)	Line of Work - Heels (cm)	Line of Work - Toes (cm)	Foot Stretcher Angle (deg)	Seat to heels - Horizontal (cm)	Seat to toes - Horizontal (cm)	Swivel above seat (cm) starb'd	Swivel above seat (cm) port	Seat below sax board (cm)	Heel below sax board (cm)	Seat above heels (cm)	Seat above ball of foot (cm)	Heel distance (cm)	Toe distance (cm)	Shoe Length (cm)	Foot Splay angle (deg)	Overall Oar Length (cm)	Oar Outboard Length (cm)	Oar Inboard Length (cm)	Blade Length (cm)	Blade Height (cm)	Blade Shape	Vortex Edge	Handle Overlap (cm)	Sill height difference L/R (cm)	FISA Gearing	Pin Gearing	Boat Velocity (m/s)
Average for class	M1x	159.6		15.1	37.5	60.1	43.3	22.9	45.4	16.7	15.7	1.5	17.6	16.1	2.2	10.1	13.2	30.4	5.8	288.3	199.6	88.6	45.2	21.6			22.0	1.0	2.48	2.07	4.48
Average for class	M2x	159.1		16.8	36.6	59.7	42.1	19.7	42.9	18.0	16.7	6.7	23.2	16.5	2.7	10.1	13.3	30.7	5.9	288.4	199.8	88.6	44.8	21.6			22.1	1.4	2.49	2.07	4.87
Average for class	M4x	158.6		17.4	36.8	60.2	42.4	19.1	42.2	18.4	17.1	9.4	27.6	18.0	4.0	11.0	13.5	31.2	4.5	288.7	200.8	87.9	45.6	21.7			21.4	1.2	2.44	2.10	5.34
Average for class	M2-		86.1	15.8	36.3	59.9	42.6	20.5	44.1	16.7	17.0	7.1	25.3	18.2	4.3	11.0	13.6	30.7	4.8	373.5	257.2	116.4	54.1	25.3			32.3	-0.3	2.97	2.21	4.76
Average for class	M4-		85.1	17.6	36.3	59.6	42.1	18.7	42.0	17.1	17.3	8.7	26.3	17.4	3.9	11.0	14.3	30.3	6.7	374.4	259.0	115.4	55.0	25.4			28.0	-0.2	3.02	2.24	5.32
Average for class	M4+		85.3	16.8	36.0	59.4	41.8	19.1	42.5	17.1	17.3	7.0	26.2	19.2	5.4	10.8	13.7	31.3	5.3	375.2	259.4	115.8	53.8	25.2			32.4	-0.2	3.03	2.26	5.16
Average for class	M8+		84.5	17.1	36.5	59.1	43.4	19.4	41.9	18.2	18.1	10.7	29.8	19.2	4.9	11.6	14.9	31.2	6.1	374.0	259.3	114.7	54.2	25.5			32.2	0.1	3.05	2.26	5.75
Average for Junior Men	M Ave	159.1	85.2	16.7	36.6	59.7	42.5	19.9	43.0	17.4	17.0	7.3	25.2	17.8	3.9	10.8	13.8	30.8	5.6										2.8	2.2	5.1
Average for class	W1x	159.3		14.8	34.5	56.2	42.8	19.4	40.5	15.4	14.8	1.0	16.5	15.4	2.3	10.1	12.3	29.0	4.4	286.9	199.0	88.0	45.3	21.7			20.7	0.6	2.47	2.08	4.02
Average for class	W2x	159.2		17.3	33.2	54.7	41.5	15.9	37.4	17.1	15.9	6.4	21.9	15.5	2.7	10.8	13.7	28.9	5.3	270.9	187.9	83.0	42.4	20.2			21.3	1.2	2.34	2.08	4.41
Average for class	W4x	158.4		17.9	33.1	55.1	42.3	14.9	36.9	17.4	16.3	9.2	25.4	16.0	3.3	10.8	13.8	28.5	5.8	287.7	199.9	87.8	44.5	21.8			21.2	1.1	2.50	2.10	4.93
Average for class	W2-		86.5	19.0	37.1	58.8	41.6	18.1	39.8	15.8	15.6	5.5	21.7	16.2	3.3	10.2	12.0	29.0	5.8	372.2	255.8	116.4	53.7	25.2			31.9	0.3	2.94	2.19	4.41
Average for class	W4-		85.2	19.2	35.7	57.9	42.8	16.5	38.7	16.4	16.4	8.6	25.9	17.3	4.4	10.6	14.3	28.4	7.5	372.0	256.3	115.6	54.0	25.3			32.4	0.0	2.98	2.21	4.77
	W4+	No competitors																													
Average for class	W8+		84.5	19.6	36.3	57.5	42.7	16.6	37.9	16.4	16.0	8.7	26.1	17.4	4.3	12.2	15.0	29.0	5.5	372.9	258.0	114.6	54.0	25.3			32.1	0.4	3.03	2.25	5.23
Average for Junior Women	W Ave	159.0	85.4	18.0	35.0	56.7	42.3	16.9	38.5	16.4	15.8	6.6	22.9	16.3	3.4	10.8	13.5	28.8	5.7										2.7	2.2	4.6
ALL MEN'S CLASSES																															
% comparison with M8+	M1x			88%	103%	102%	100%	118%	108%	92%	87%	14%	59%	84%	45%	87%	88%	97%	95%	77%	77%	77%	83%	85%			68%		81%	91%	78%
	M2x			98%	100%	101%	97%	102%	102%	99%	93%	63%	78%	86%	54%	87%	89%	98%	97%	77%	77%	77%	83%	85%			69%		82%	92%	85%
	M4x			102%	101%	102%	98%	99%	101%	101%	95%	88%	93%	94%	81%	95%	90%	100%	74%	77%	77%	77%	84%	85%			66%		80%	93%	93%
	M2-		102%	92%	99%	101%	98%	106%	105%	92%	94%	67%	85%	95%	87%	95%	91%	99%	78%	100%	99%	101%	100%	99%			100%		97%	97%	83%
	M4-		101%	103%	100%	101%	97%	97%	100%	94%	96%	81%	88%	91%	80%	95%	96%	97%	110%	100%	100%	101%	101%	99%			87%		99%	99%	93%
	M4+		101%	98%	99%	101%	96%	99%	101%	94%	96%	65%	88%	100%	110%	93%	91%	100%	87%	100%	100%	101%	99%	99%			101%		99%	100%	90%
	M8+		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			100%		100%	100%	100%
ALL WOMEN'S CLASSES																															
% comparison with W8+	W1x			75%	95%	98%	100%	117%	107%	94%	92%	12%	63%	89%	54%	83%	82%	100%	79%	77%	77%	77%	84%	86%			65%		82%	92%	77%
	W2x			88%	92%	95%	97%	96%	99%	105%	100%	74%	84%	89%	63%	89%	91%	100%	97%	73%	73%	72%	78%	80%			66%		77%	92%	84%
	W4x			91%	91%	96%	99%	90%	97%	107%	102%	106%	97%	92%	77%	88%	92%	99%	105%	77%	77%	77%	82%	86%			66%		82%	93%	94%
	W2-		102%	97%	102%	102%	97%	109%	105%	97%	97%	63%	83%	93%	76%	84%	80%	100%	105%	100%	99%	102%	99%	99%			100%		97%	97%	84%
	W4-		101%	98%	98%	101%	100%	99%	102%	100%	103%	99%	99%	99%	103%	87%	95%	98%	136%	100%	99%	101%	100%	100%			101%		98%	98%	91%
	W4+	No competitors																													
	W8+		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			100%		100%	100%	100%
SCULL CLASSES																															
% comparison with M4x	W1x	100%		85%	94%	93%	101%	102%	96%	84%	86%	11%	60%	86%	59%	92%	91%	93%	97%	99%	99%	100%	99%	100%			97%	49%	101%	99%	75%
	W2x	100%		99%	90%	91%	98%	83%	89%	93%	93%	68%	79%	86%	68%	98%	101%	92%	119%	94%	94%	94%	93%	93%			100%	96%	96%	99%	83%
	W4x	100%		102%	90%	92%	100%	78%	87%	95%	95%	97%	92%	89%	83%	98%	102%	91%	128%	100%	100%	100%	97%	100%			99%	89%	102%	100%	92%
	M1x	101%		87%	102%	100%	102%	120%	107%	91%	92%	16%	64%	89%	56%	91%	98%	97%	130%	100%	99%	101%	99%	99%			103%	81%	102%	99%	84%
	M2x	100%		97%	99%	99%	99%	103%	102%	98%	98%	71%	84%	92%	66%	91%	98%	98%	131%	100%	99%	101%	98%	99%			103%	109%	102%	99%	91%
	M4x	100%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			100%	100%	100%	100%	100%
SWEEP CLASSES																															
% comparison with M8+	W2-		102%	111%	102%	100%	96%	93%	95%	87%	86%	51%	73%	85%	67%	88%	80%	93%	95%	100%	99%	101%	99%	99%			99%		96%	97%	77%
	W4-		101%	112%	98%	98%	99%	85%	92%	90%	91%	80%	87%	90%	90%	91%	96%	91%	122%	99%	99%	101%	100%	99%			101%		98%	98%	83%

W8+	100%	115%	99%	97%	98%	86%	90%	90%	88%	81%	88%	91%	88%	105%	101%	93%	90%	100%	99%	100%	100%	99%	100%	99%	100%	91%
M2-	102%	92%	99%	101%	98%	106%	105%	92%	94%	67%	85%	95%	87%	95%	91%	99%	78%	100%	99%	101%	100%	99%	100%	97%	97%	83%
M4-	101%	103%	100%	101%	97%	97%	100%	94%	96%	81%	88%	91%	80%	95%	96%	97%	110%	100%	100%	101%	101%	99%	87%	99%	99%	93%
M4+	101%	98%	99%	101%	96%	99%	101%	94%	96%	65%	88%	100%	110%	93%	91%	100%	87%	100%	100%	101%	99%	99%	101%	99%	100%	90%
M8+	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Spans and Spreads (cm)

Legend:
- Span (cm) Scull
- Spread (cm) Sweep

Through the work & horizontal distances (cm)

Legend:
- Distance Through Work (cm)
- Line of Work - Heels (cm)
- Line of Work - Toes (cm)
- Foot Stretcher Angle (deg)
- Seat to heels - Horizontal (cm)
- Seat to toes - Horizontal (cm)

Relative height data (cm)

Legend:
- Swivel above seat (cm) starb'd
- Swivel above seat (cm) port
- Seat below sax board (cm)
- Heel below sax board (cm)
- Seat above heels (cm)
- Seat above ball of foot (cm)

Foot splay and shoe size (deg / cm)

Legend:
- Heel distance (cm)
- Toe distance (cm)
- Shoe Length (cm)
- Foot Splay angle (deg)

only adjustable foot splay was GER W2-

Oar data (cm)

Legend:
- Overall Oar Length (cm)
- Oar Outboard Length (cm)
- Oar Inboard Length (cm)
- Blade Length (cm)
- Blade Height (cm)
- Handle Overlap (cm)

Sill Height difference (cm)

Legend:
- Sill height difference L/R (cm)

Numbers of boats, riggers and blades

Boat Maker	1x	2x	4x	2-	4-	4+	8+	Total
Emp	6	9	7	5	10	1	5	43
Fil	26	24	22	13	9	5	3	102
Win	6	4		2	1			13
Syk			2		2	1		5
Sch	1		1	1	2			5
Hud	1	1	1	1	2			6
Swi	1							1
CD								
Ves				1	1	1	2	5
missing	5	6	4	4	1	1		21
Total	46	44	37	27	28	9	10	201
Check	46	44	37	27	28	9	10	201

% Market share

Boat Maker	1x	2x	4x	2-	4-	4+	8+	Total	Boat Maker
Emp	13%	20%	19%	19%	36%	11%	50%	21%	Emp
Fil	57%	55%	59%	48%	32%	56%	30%	51%	Fil
Win	13%	9%		7%	4%			6%	Win
Syk			5%		7%	11%		2%	Syk
Sch	2%		3%	4%	7%			2%	Sch
Hud	2%	2%	3%	4%	7%			3%	Hud
Swi	2%							0%	Swi
CD									CD
Ves				4%	4%	11%	20%	2%	Ves
missing	11%	14%	11%	15%	4%	11%		10%	missing
Total	100%	100%	100%	100%	100%	100%	100%	100%	Total
Check	100%	100%	100%	100%	100%	100%	100%	100%	Check

% Measured	
Boat Maker	89.6%
Rigger Maker	89.6%
Rigger type	89.1%
Blade Maker	85.1%
Blade Shape	#REF!

Number of seats	1x	2x	4x	2-	4-	4+	8+	Total
Number of seats	46	88	148	54	112	36	80	564

Most popular: boat and rigger maker is Fillippi, rigger type is Al W1, blade maker C2, Blade shape S2

Rigger Maker	1x	2x	4x	2-	4-	4+	8+	Total
Emp	6	9	7	5	10	1	5	43
Fil	26	24	21	13	9	5	3	101
Win	6	4		2	1			13
Syk			2		2	1		5
Sch	1		1	1	2			5
Hud	1	1	1	1	2			6
Swi	1							1
CD			1					1
Ves				1	1	1	2	5
missing	5	6	4	4	1	1		21
Total	46	44	37	27	28	9	10	201
Check	46	44	37	27	28	9	10	201

Rigger Maker	1x	2x	4x	2-	4-	4+	8+	Total	Rigger Maker
Emp	13%	20%	19%	19%	36%	11%	50%	21%	Emp
Fil	57%	55%	57%	48%	32%	56%	30%	50%	Fil
Win	13%	9%		7%	4%			6%	Win
Syk			5%		7%	11%		2%	Syk
Sch	2%		3%	4%	7%			2%	Sch
Hud	2%	2%	3%	4%	7%			3%	Hud
Swi	2%							0%	Swi
CD			3%					0%	CD
Ves				4%	4%	11%	20%	2%	Ves
missing	11%	14%	11%	15%	4%	11%		10%	missing
Total	100%	100%	100%	100%	100%	100%	100%	100%	Total
Check	100%	100%	100%	100%	100%	100%	100%	100%	Check

Rigger type	1x	2x	4x	2-	4-	4+	8+	Total
Al W1	9	16	14	15	15	6	9	84
Al W	10		1		1			12
CF W	1							1
CF W1			3		4	1		8
CF 2	7	8	1		3			19
Al 3	7	11	12	7	4	1	1	43
Al 2	3		1	1				5
Al W(Bow)	2	3						5
CF W(Bow)	2							2
missing	5	6	5	4	1	1		22
Total	46	44	37	27	28	9	10	201
Check	46	44	37	27	28	9	10	201

Rigger type	1x	2x	4x	2-	4-	4+	8+	Total	Rigger type
Al W1	20%	36%	38%	56%	54%	67%	90%	42%	Al W1
Al W	22%		3%		4%			6%	Al W
CF W	2%							0%	CF W
CF W1			8%		14%	11%		4%	CF W1
CF 2	15%	18%	3%		11%			9%	CF 2
Al 3	15%	25%	32%	26%	14%	11%	10%	21%	Al 3
Al 2	7%		3%	4%				2%	Al 2
Al W(Bow)	4%	7%						2%	Al W(Bow)
CF W(Bow)	4%							1%	CF W(Bow)
missing	11%	14%	14%	15%	4%	11%		11%	missing
Total	100%	100%	100%	100%	100%	100%	100%	100%	Total
Check	100%	100%	100%	100%	100%	100%	100%	100%	Check

Blade Maker	1x	2x	4x	2-	4-	4+	8+	Total
C2	32	22	21	18	18	5	7	123
Cro	6	12	10	3	4	2	2	39
Emp	1	1	1					3
Dre				1	1		1	3
Bra		2						2
Bra/C2					1			1
Missing	7	7	5	5	4	2		30
Total	46	44	37	27	28	9	10	201
Check	46	44	37	27	28	9	10	201

Blade Maker	1x	2x	4x	2-	4-	4+	8+	Total	Blade Maker
C2	70%	50%	57%	67%	64%	56%	70%	61%	C2
Cro	13%	27%	27%	11%	14%	22%	20%	19%	Cro
Emp	2%	2%	3%					1%	Emp
Dre				4%	4%		10%	1%	Dre
		5%						1%	
					4%			0%	
Missing	15%	16%	14%	19%	14%	22%		15%	Missing
Total	100%	100%	100%	100%	100%	100%	100%	100%	Total
Check	100%	100%	100%	100%	100%	100%	100%	100%	Check

Blade Shape	1x	2x	4x	2-	4-	4+	8+	Total
BB	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
S2	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
F2S	5	1	1	1	1			9
Apex				1			1	2
ApexR								
Sli	3	12	10	3	3	2	2	35
Cle								
DSn								
Sm	1		1					2
Bra/F2S					1			1
Missing	8	8	5	5	5	2		33
Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
Check	46	44	37	27	28	9	10	201

Blade Shape	1x	2x	4x	2-	4-	4+	8+	Total	Blade Shape
BB	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	BB
S2	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	S2
F2S	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	F2S
Apex	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Apex
ApexR	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	ApexR
Sli	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Sli
Cle	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Cle
DSn	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	DSn
Sm	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Sm
Bra/F2S	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Bra/F2S
Missing	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Missing
Total	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Total
Check	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	Check

Details of measurement issues

Boat Class	1x	2x	4x	2-	4-	4+	8+	Total	
Did not measure	LAT, SUI	GRE, USA, HUN, NED, GER	GER, NED, GBR, NZL	SRB, LTU, NOR	CRO	SRB		16	
Measured but sheet missing	CRO	GER		GER				3	
No Rack listed, not measured	BLR, VEN							2	
Total not measured	5	6	4	4	1	1	0	21	21
Measured Twice				FRA				1	
Measured but did not race				GBR				1	

Boat Class	1x	2x	4x	2-	4-	4+	8+	Total
JM	23	25	21	18	17	9	7	120
JW	18	19	16	9	11	0	3	76
Total boats measured	41	44	37	27	28	9	10	196

	1x	2x	4x	2-	4-	4+	8+	Total
Total boats at regatta	46	50	41	31	29	10	10	217
% measured	89.1%	88.0%	90.2%	87.1%	96.6%	90.0%	100.0%	90.3%

	1x	2x	4x	2-	4-	4+	8+	Total
Seats measured	41	88	148	54	112	36	80	559