

BOAT Name STARDUST Sail Nr X41 29	GPH 571.0	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 7,037kg Draft 2.506m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.040% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-41 Designer JEPPESEN Builder X-YACHTS Series 12/2006, CIN 29 Age 01/2007 Age Allowance 0.422% Offset File X41.OD.OFF - 23/02/2015 18:29:08 Measurement by - 22/04/2018		IMSL 11.173m VCGD -0.015m Sink 23.12kg/mm RL 10.242m VCGM -0.042m WS 30.93m² LSM0 11.087m Displacement/Length ratio 5.1635



2019
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Certificate

Rating Office

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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	555.3			619.9		
Time on Time	1.0805			1.0890		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	650.0	506.9	454.1	837.5	622.1	544.0
Time on Time	1.0385	1.3316	1.4863	0.8060	1.0850	1.2409

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	945.4	778.5	690.6	659.8	647.5	638.8	627.4
52°	621.9	522.6	479.6	466.1	460.8	458.3	450.5
60°	589.2	502.6	467.6	454.0	448.5	445.6	438.1
75°	564.6	489.3	459.3	442.2	430.7	424.7	419.5
90°	570.5	488.7	456.0	440.1	423.0	408.4	392.0
110°	581.1	484.8	448.3	424.6	407.8	395.6	376.8
120°	598.1	493.8	452.6	426.3	401.4	380.5	356.1
135°	662.1	535.7	472.4	443.6	418.0	392.3	341.2
150°	783.8	624.6	528.4	473.8	445.9	422.2	375.2
Run VMG	905.0	721.2	610.1	540.8	494.6	459.9	413.8

Certificate

Number **142222**
ORC Ref **GER20040781**
Issued On **01/05/2019**
VPP Ver. **2019 1.01**
Valid until **01/01/2020**

Crew Weight

Default **797kg**
Maximum **825kg**
Minimum* **619kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	580.7	1.0332
Double H.OSN	566.4	1.0594
Non Spin GPH	605.4	0.9911
Non Spin OSN	588.8	1.0190

Selected Courses							
Windward / Leeward	925.2	749.8	650.3	600.3	571.0	549.4	520.6
Circular Random	782.4	633.2	554.1	508.9	481.1	462.3	436.8
Coastal / Long Distance	923.2	705.4	588.5	526.2	492.2	463.6	418.6
Non Spinnaker	844.2	676.9	586.6	533.8	501.1	479.4	451.2

Sails Limitations

Headsails	Spinnakers
6	4

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	42.5°	41.0°	39.9°	38.3°	37.7°	37.7°	38.0°
Beat VMG	3.81	4.62	5.21	5.46	5.56	5.64	5.74
52°	5.79	6.89	7.51	7.72	7.81	7.86	7.99
60°	6.11	7.16	7.70	7.93	8.03	8.08	8.22
75°	6.38	7.36	7.84	8.14	8.36	8.48	8.58
90°	6.31	7.37	7.89	8.18	8.51	8.81	9.18
110°	6.20	7.43	8.03	8.48	8.83	9.10	9.56
120°	6.02	7.29	7.95	8.45	8.97	9.46	10.11
135°	5.44	6.72	7.62	8.12	8.61	9.18	10.55
150°	4.59	5.76	6.81	7.60	8.07	8.53	9.60
Run VMG	3.98	4.99	5.90	6.66	7.28	7.83	8.70
Gybe Angles	142.4°	147.5°	150.1°	155.8°	169.8°	180.0°	180.0°

Class Division Length

CDL = **10.708**

Storm Sails Areas

Heavy Weather Jib **39.76**
Storm Jib (JL=11.16) **14.73**
Storm Trysail **15.81**

Owner

BOAT	
Name STARDUST	Sail Nr X41 29
File X4129	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 16/04/2018		SG 1.0140	
FFM 1.418	FF 1.426	SFFP 0.200	
FAM 1.094	FA 1.097	SAFP 11.995	
W1 80.0	PD1 447.0	WD 13.447	
W2 80.0	PD2 449.0	GSA 1.0	
W3 80.0	PD3 445.0	RSA 1.0	
W4 80.0	PD4 446.0	PLM 9000.0	
LCF from stem on CL / on sheer		6.895 / 7.110	
Maximum beam station from stem		8.432	
RM Measured		189.6kg-m	
RM Default		202.4kg-m	
Limit of positive stability / Stab.Index		121.5° / 125.4	
Freeboard at mast at 5.290		1.197	



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RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler No		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 16.423	E 5.498	MDT1 0.131	MW 0.241
IG 17.037	J 4.983	MDL1 0.240	GO 0.277
ISP 18.188	SFJ 0.307	MDT2 0.122	BD 0.304
BAS 1.857	SPL 5.168	MDL2 0.210	MWT 220.00
FSP 0.066	TPS	TL 0.815	MCG 5.690

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.435		
Type Folding 2 blades	PBW 0.125		
Twin Screw No	PIPA 0.0041		
ST1 0.065	ST3 0.180	ST5 0.344	
ST2 0.180	ST4 0.110	EDL 1.900	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

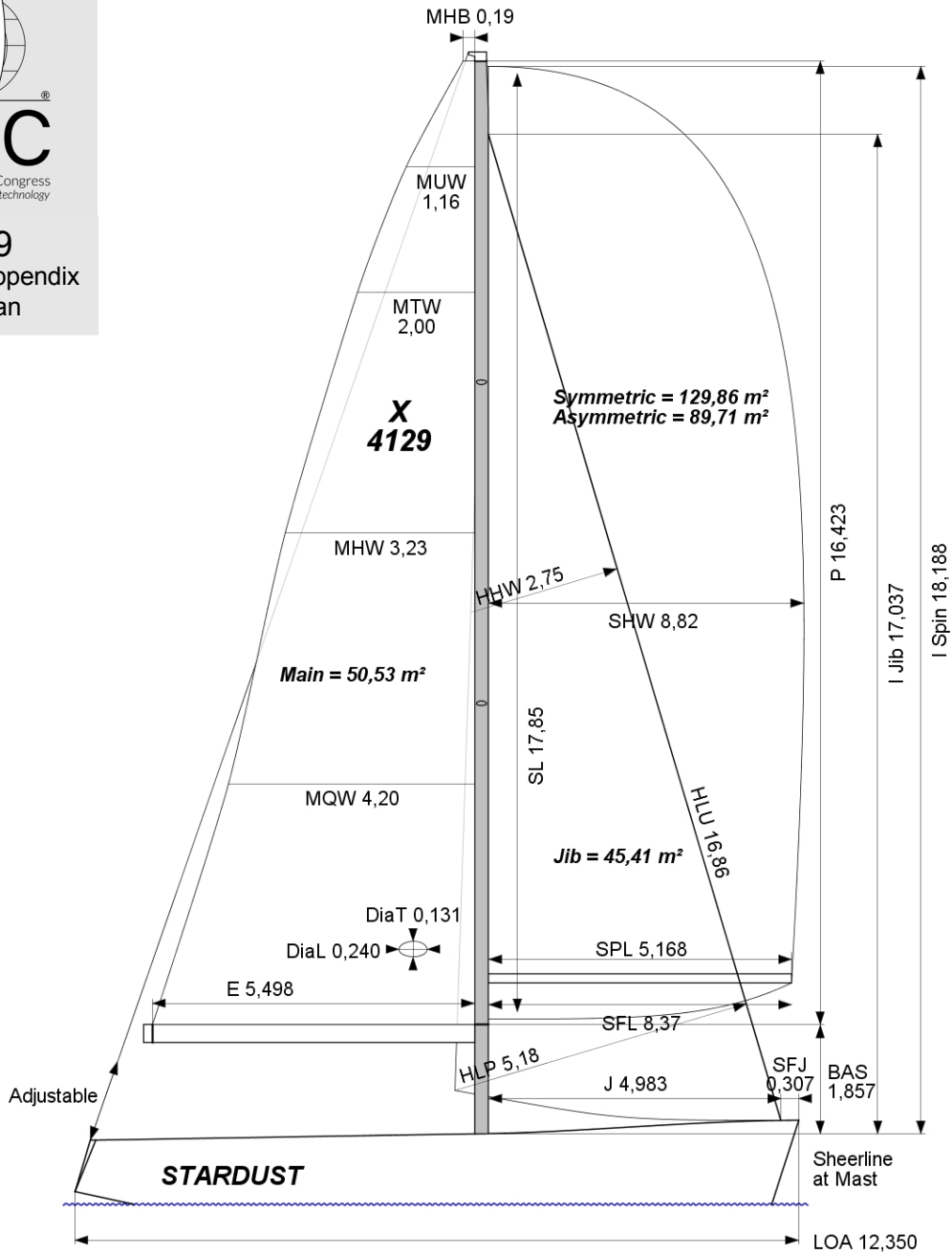


SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.190	1.16	2.00	3.23	4.20	50.53	51.17	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	129.86		SL · (SFL + 4·SHW) / 6	
	17.85	17.85	17.85	8.82	8.37				
Asymmetric	SLU	SLE	SL	SHW	SFL	89.71	Area (r) 111.10	AS · (SFL + 4·SHW) / 6	
	18.39	16.72	17.55	5.75	7.66				

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.08	0.75	1.46	2.75	3.99	5.18	16.86	45.42	Y		17/04/2018	Unknow	superlight
0.07	0.73	1.42	2.71	3.94	5.18	16.68	44.44	Y		17/04/2018	Unknow	light
0.07	0.72	1.39	2.62	3.78	5.14	16.77	43.52	Y		17/04/2018	Unknow	medium
0.09	0.66	1.25	2.40	3.61	4.90	16.15	39.39	Y		17/04/2019	Carbon	C3 Jib
0.07	0.48	0.96	2.04	3.22	4.52	15.93	34.06	Y			Unknow	Genua IV

MEASUREMENT INVENTORY				
Measurer 181				
Date 16/04/2018				
Comment Laboe				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	Volvo Penta	D2-40B	
Id	Item	Weight Description		

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
3	Tank Fuel		S/S	90.0	5.95	0.00	45-0 45 Liter Fuel
2	Tank Water		Plastic	400.0	0.00	0.00	0-0 0
1	Tank Waste		-	38.0	4.30	1.15	0-0 0
Id	Item	Weight	Distance	VCG Description			
2	Battery	16.0	7.90	0.00 Motor, 1x 70Ah			
1	Battery	52.8	0.00	0.00 Service, 2x156Ah			



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
164282	0.19	1.16	2.00	3.23	4.20	50.53		14/01/2019	DOYLE	Carbon	

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
138072	0.08	0.75	1.46	2.75	3.99	5.18	16.86	104%	45.42	Y			17/04/2018	North	Unknown	superlight
137883	0.07	0.73	1.42	2.71	3.94	5.18	16.68	104%	44.44	Y			17/04/2018	North	Unknown	light
160690	0.07	0.72	1.39	2.62	3.78	5.14	16.77	103%	43.52	Y			17/04/2018	North	Unknown	medium
DK8602	0.09	0.66	1.25	2.40	3.61	4.90	16.15	98%	39.39	Y			17/04/2019	ELVSTROEM	Carbon	C3 Jib
163206	0.07	0.48	0.96	2.04	3.22	4.52	15.93	91%	34.06	Y				Schultz	Unknown	Genua IV

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
160697	17.85	17.85	17.85	8.82	8.37	129.86		17/04/2018	North	Nylon	Light
160699	17.89	17.89	17.89	8.74	8.38	129.23		17/04/2018	North	Nylon	Hard
82277	17.69	17.69	17.69	8.84	8.24	128.55		17/04/2018	North	Nylon	Light2011

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
0	18.39	16.72	17.55	5.75	7.66	89.71	asym			ONE SAILS	Unknown	