



GER
001

Dehler 3000

Dehler  3000

Dehler  **30od**

BORN TO COMPETE.

The Dehler 30 one design is a high-performance yacht. Our dedicated team of specialists has created a boat that strikes the optimum balance between speed and handling through the use of the latest technology. World-renowned yacht designers from judel/vrolijk & co. and sailing icons from Speedsailing Rostock supported the Dehler development team. Under the project management of successful racer Karl Dehler, the team has brought to life an innovative and unique vision. Regatta pro or amateur sailor alike - new limits can be reached safely and in full control.




speedsailing®

class association
Dehler  **30od**

Dehler  **30od**




speedsailing®

class association
Dehler  **30od**

Boat description.

As one of the world leaders for performance cruisers, Dehler Yachts starts a new chapter in its more than 50 years of history - the Dehler 30 od. In tradition of Sprinta Sport and DB1, Dehler Yachts presents a new offshore one-design class, focussing on double-handed long distance racing. Produced in surveilled quality and tolerances it represents most modern trends in design, materials, solutions and refining technologies.

An optimized hull design, appendages and sailplan developed by the world known designers of judel/vrolijk & co allow maximum speeds and safe navigation at windspeeds from 4 to 40 kn. The vessel is designed for highest safety of the crew according to CE regulations cat. A and with no regards to any handicap system. Extra stability is generated by a water ballast system. The structural concept representing the latest version of the „Dehler carbon cage“ makes the boat stiff and rigid at lowest weight.

The decklayout is optimized for efficient double-handed sailing. It allows advanced interaction between skipper and crew and is a result of various ergonomic studies. A wide and complete sailset for different conditions make the vessel fast but also challenging to sail. The Dehler Yachts team was consulted by various offshore professionals to represent the latest developments in offshore racing.

The interior gives maximum functionality, representing modern and contemporary design.

Leeboards adjustable berths and plenty of stowage for equipment, spares and tools allow highest comfort at sea in any condition and situation. With a separated toilet and a fully equipped pantry block no comfort is missing.

4 - 6 berths make the boat also usable in everyday life for transferring and beside racing. Clear surfaces and modern design are completing an unique and outstanding product. After two years of intensive research, design and development, the Dehler 30 od became a perfect product for the new generation of sailors adopting the challenge of double handed offshore racing.

Dehler 30od




speedsailing®

class association  **Dehler 30od**

Design Comment.

Our new Dehler 30 OD is the first production boat, we developed for this brand, that is designed only with speed and performance in mind. All other aspects such as interior volume, headroom and comfort have been compromised to achieve this.

Designwise it was the intention to follow current single- and double-handed raceboat design trends, but with a major difference in allround performance. Analyzing current racing conditions, especially all over Europe, it became evident, that many of the racing is done in lighter winds, and - that good upwind performance still is necessary to win races. Thus we sacrificed the pure downwind reaching performance slightly (you get nothing for free!) and gained back allround and light wind power. By the use of water ballast, performance is increased in short handed mode, whereas in crewed mode with an intended crew of four, this additional stability feature is not in use.

In this combination, we think the boat is unique and will satisfy the single- and double hand minded racing sailors as well as the ambitions of the more conventional race course oriented crews.

Because we left some room for interior and also came up with some nice under deck design ideas, the boat might also attract for sporty weekend cruising or as a high performance daysailer. This is not to underestimate, because it helps to create fleets and keep a good resale value.

May 2019, - judel/vrolijk & co

judel/vrolijk & co
DESIGN ■ ENGINEERING

Dehler 30od



TECHNICAL DATA

LOA 10.30 m / 33' 10"

HULL LENGTH 9.14 m / 30' 0"

LWL 8.97 m / 29' 5"

BEAM 3.28 m / 10' 9"

AIRDRAFT 14.30 m / 46' 11"

DRAUGHT
T - KEEL 2.20 m / 7' 3"

BALLAST
T - KEEL 0.94 t / 2,072 lbs
WATERBALLAST 0.2 t / 441 lbs

DISPLACEMENT
T - KEEL 2.8 t / 6,173 lbs

ENGINE APPROX. Diesel 10 PS / hp

FRESH WATER TANK approx. 40 l / 10.57 gal

FUEL TANK approx. 25 l / 6.60 gal

MAIN SAIL 33.50 m² / 361 sq ft

JIB 105% 28.20 m² / 304 sq ft

STAYSAIL 15.00 m² / 161 sq ft

CODE - 0* 52.00 m² / 560 sq ft

GENNAKER A2* 100.00 m² / 1,076 sq ft

GENNAKER A5* 85.00 m² / 915 sq ft

RIG
IG 12.20 m / 40'
J 4.11 m / 13' 5"
P 12.00 m / 39' 4"
E 3.90 m / 12' 8"

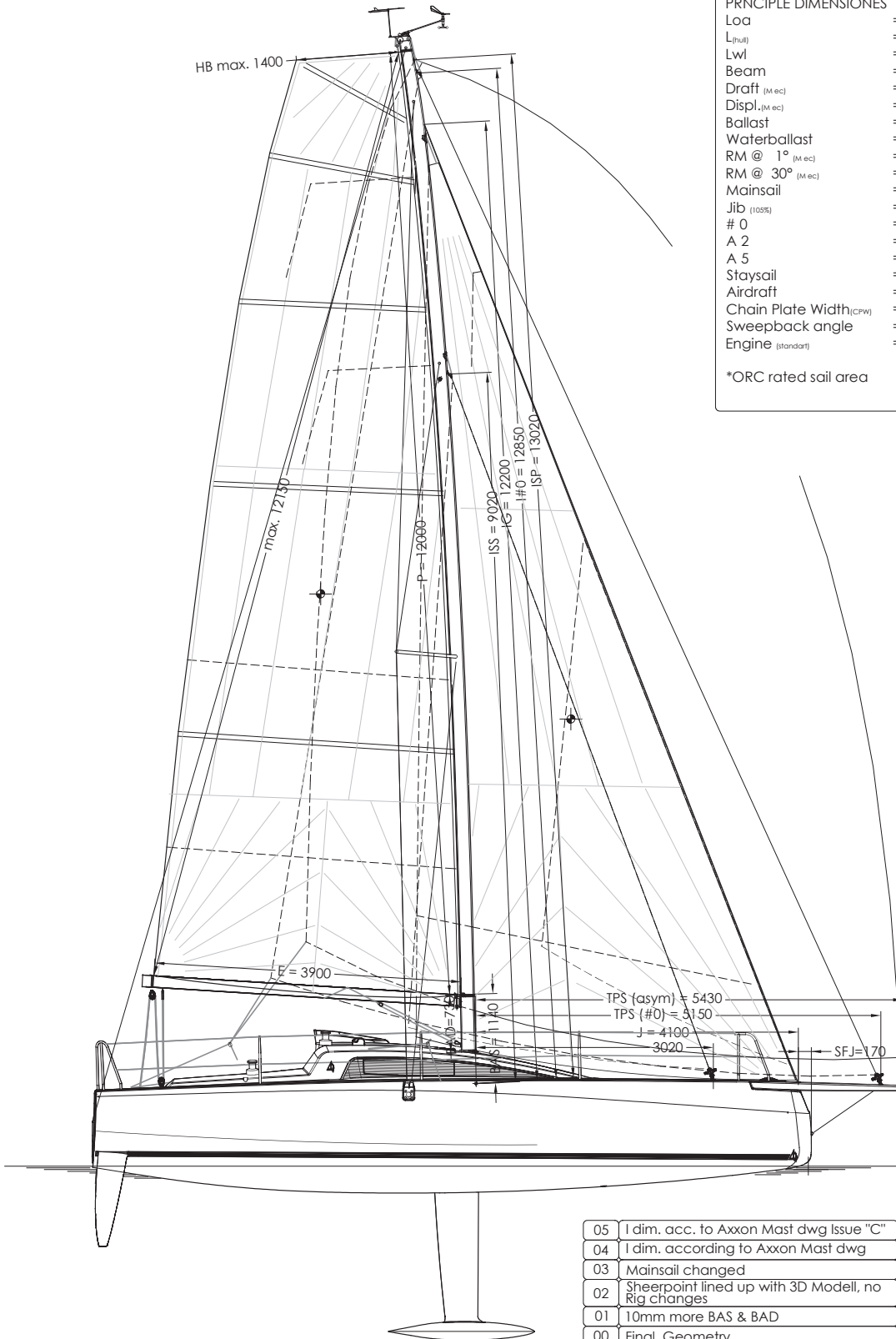
CE CERTIFICATE A - 4 / B - 6

DESIGN judel/vrolijk & co.

INTERIOR judel/vrolijk & co. - Dehler

DEHLER STEALTH DRIVE Bieker Boats

Dehler 30od



PRINCIPLE DIMENSIONS

Loa	=	10,30	m
L _(hull)	=	9,14	m
Lwl	=	8,97	m
Beam	=	3,28	m
Drift _(M.ec)	=	2,20	m
Displ. _(M.ec)	=	2 800	Kg
Ballast	=	940	Kg
Waterballast	=	200	Kg
RM @ 1° _(M.ec)	=	80	Kgm
RM @ 30° _(M.ec)	=	1 850	Kgm
Mainsail	=	33,5*	m ²
Jib _(100%)	=	28,2*	m ²
# 0	=	52,0*	m ²
A 2	=	100,0*	m ²
A 5	=	85,0*	m ²
Staysail	=	15,0	m ²
Airdraft	=	14,30	m
Chain Plate Width _(CPW)	=	3,00	m
Sweepback angle	=	27	deg.
Engine _(standart)	=	9	kW/hp

*ORC rated sail area

05	1 dim. acc. to Axxon Mast dwg Issue "C"	02/12/19	BR
04	1 dim. according to Axxon Mast dwg	19/07/19	BR
03	Mainsail changed	17/07/19	BR
02	Sheerpoint lined up with 3D Modell, no Rig changes	05/06/19	BR
01	10mm more BAS & BAD	05/06/19	BR
00	Final Geometry	15/03/19	BR
ISSUE	MODIFICATION	DATE	DRWAN BY

judel/vrolijk & co PROPRIETARY
 THE INFORMATION CONTAINED HEREON IS STRICTLY CONFIDENTIAL AND IS SUBJECT TO A CONFIDENTIALITY AGREEMENT AND A PERSON USING OR DISCLOSING THE INFORMATION CONTAINED HEREON IN BREACH OF SUCH AGREEMENT SHALL BE SUBJECT TO AN ACTION TO ENJOIN SUCH USE AND A SUIT FOR DAMAGES.

DUE TO BUILDING TOLERANCES ALL DIMENSIONS GIVEN ON THIS DRAWING ARE TO BE CHECKED ON THE BOAT ! ALL DIMENSIONS ON THIS DRAWING ARE GIVEN mm.

DEHLER 16 A A3 - 1:50 SCALE 1 of 1 SHEET

Sailplan, One Design D16A-1140-750 DRAWING NUMBER

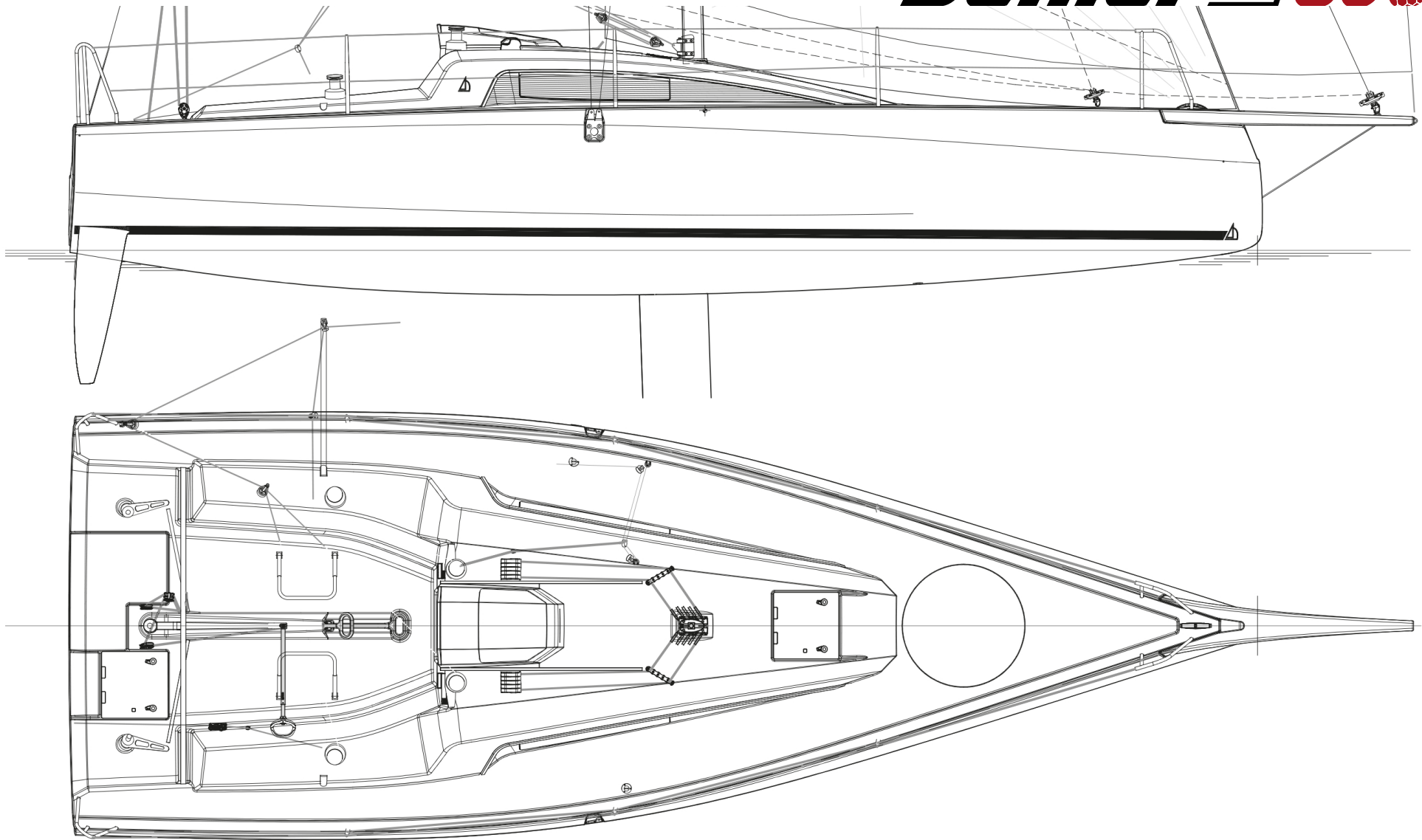
judel/vrolijk & co ■ engineering gmbh

Am Alten Vorhafen 8
 27568 Bremerhaven
 Germany

Telefon +49 (0)471 30 88 11 - 0
 Telefax +49 (0)471 30 88 11 - 30
 e-Mail info@judel-vrolijk.com



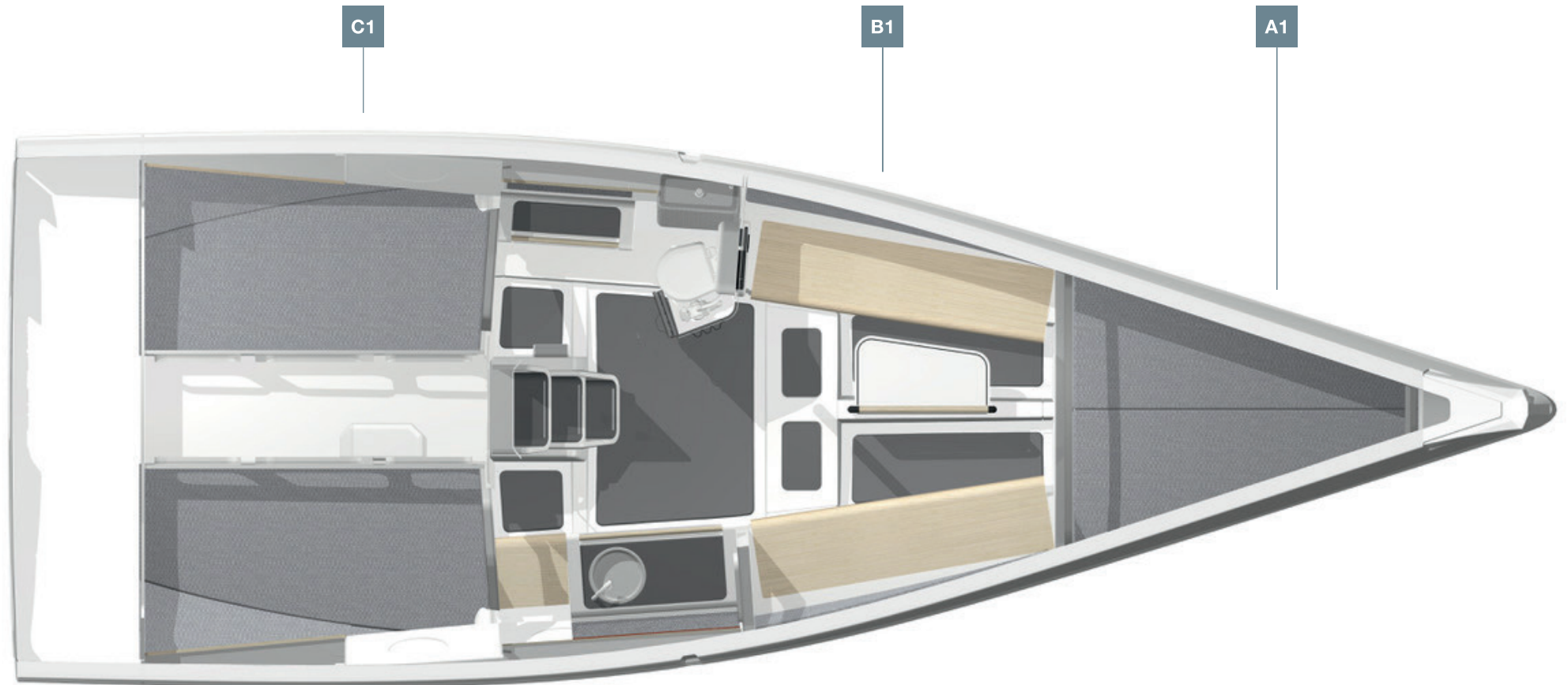
Dehler  **30od**




speedsailing®

class association
Dehler  **30od**

Dehler 30od



Dehler 30od



Dehler 30od




speedsailing®

class association  **Dehler** 30od

VIDEO Links selection:

30 sec. mixedoffshore trailer

<https://www.speedsailing.de/dehler-30-od-intern.html>

interview with Knut Frostad

https://www.youtube.com/watch?v=Q0_CfsJlmaQ&list=PLEJfbsTgxh4Ovrpwo-ki14U0UdG_exPkwj&index=3

seatrial Baltic

<https://vimeo.com/366717961>

Dehler  **30od**




speedsailing®

class association
Dehler  **30od**

Speedsailing - Dehler30 onedesign center Rostock (Germany)

with us from the start.....

- First D30od training & test center
- D30od charter base
- D30od longtime charter for 2 & more years
- class & boat ambassador Europe
- Development and conception for further D30od points in Europe

Dehler  **30od**




speedsailing®

class association
Dehler  **30od**

contact

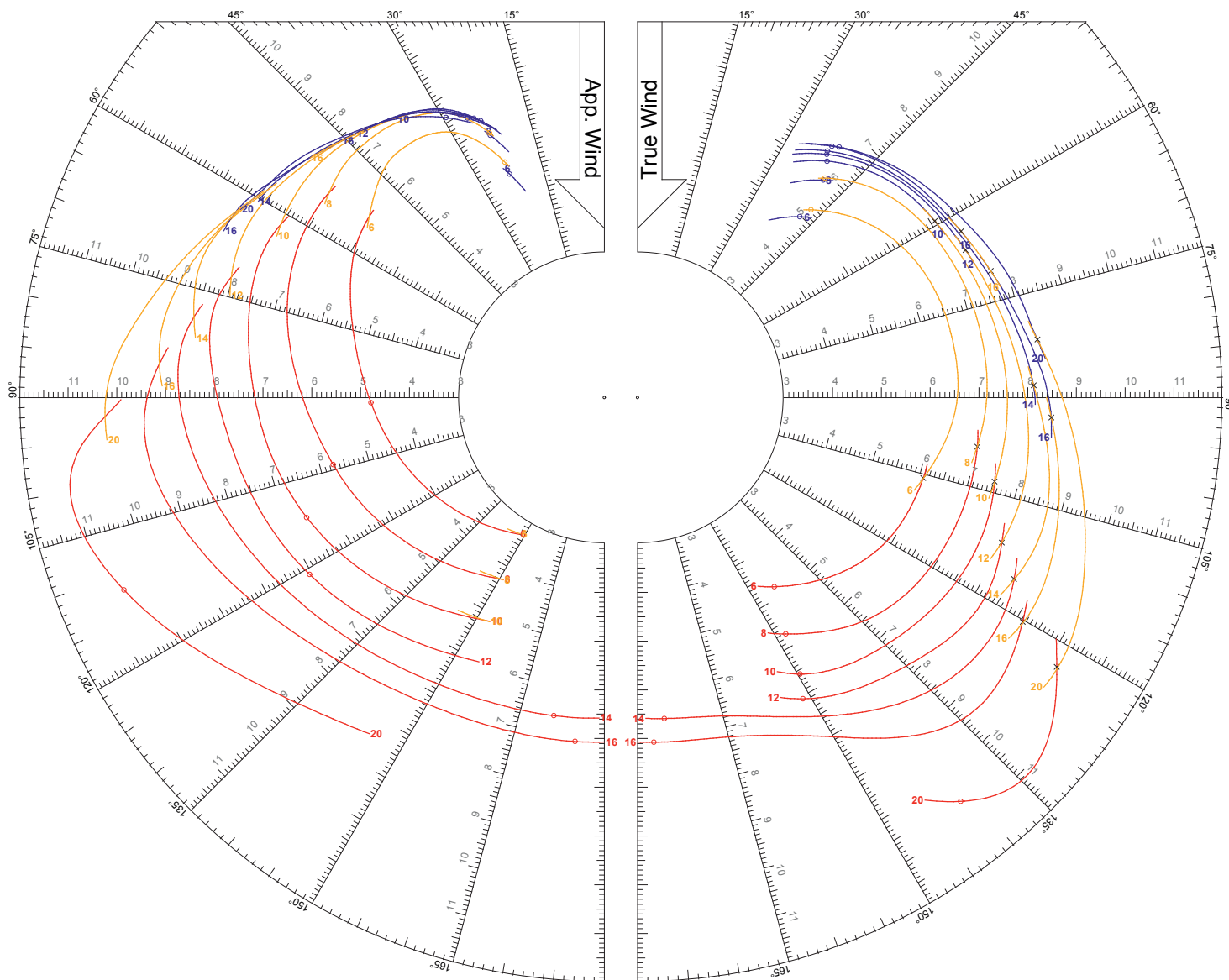
Felix Hauss
managing director speedsailing
vice President D30onedesign class association
+49 173 2945506 felix.hauss@speedsailing.de

Karl Dehler
vice President D30onedesign class association
+49 162 2194053 kalle@dehler30onedesign-classassociation.com

Andreas Unger
Brand Manager Hanse Yachts AG
+49 173 3534992 aunger@hanseyachtsag.com

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 6, 8, 10, 12, 14, 16, 20 kts

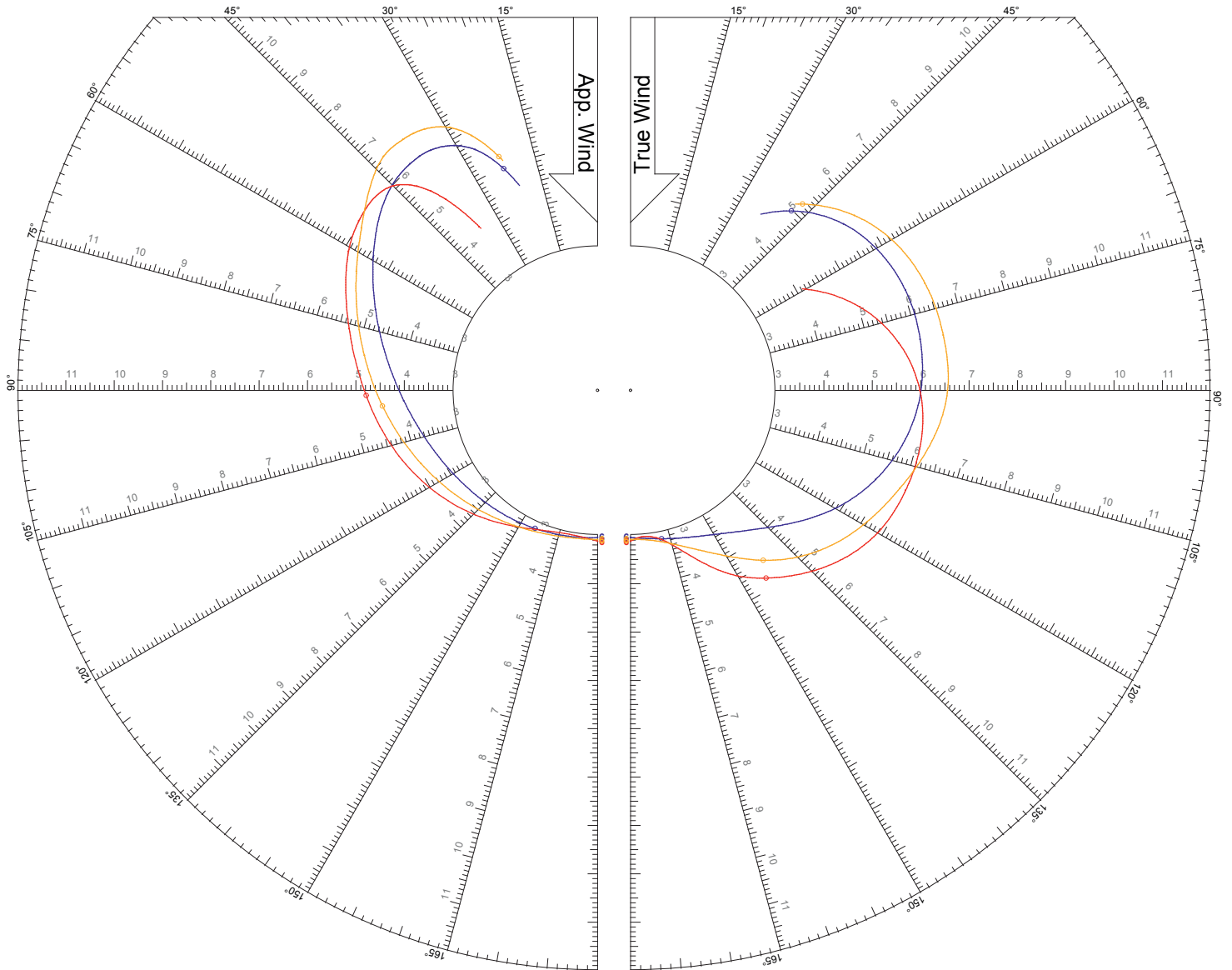
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 6 kts

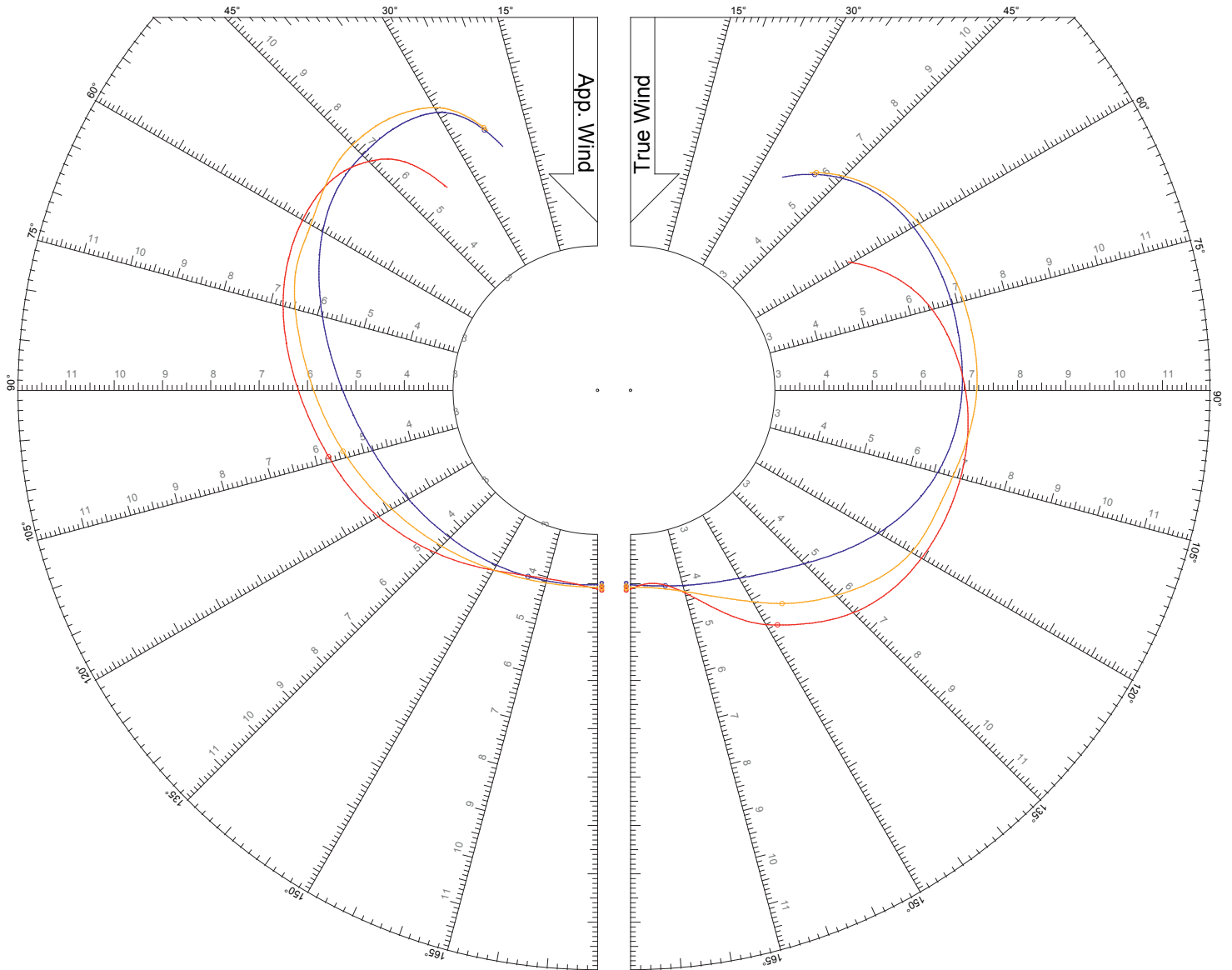
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 8 kts

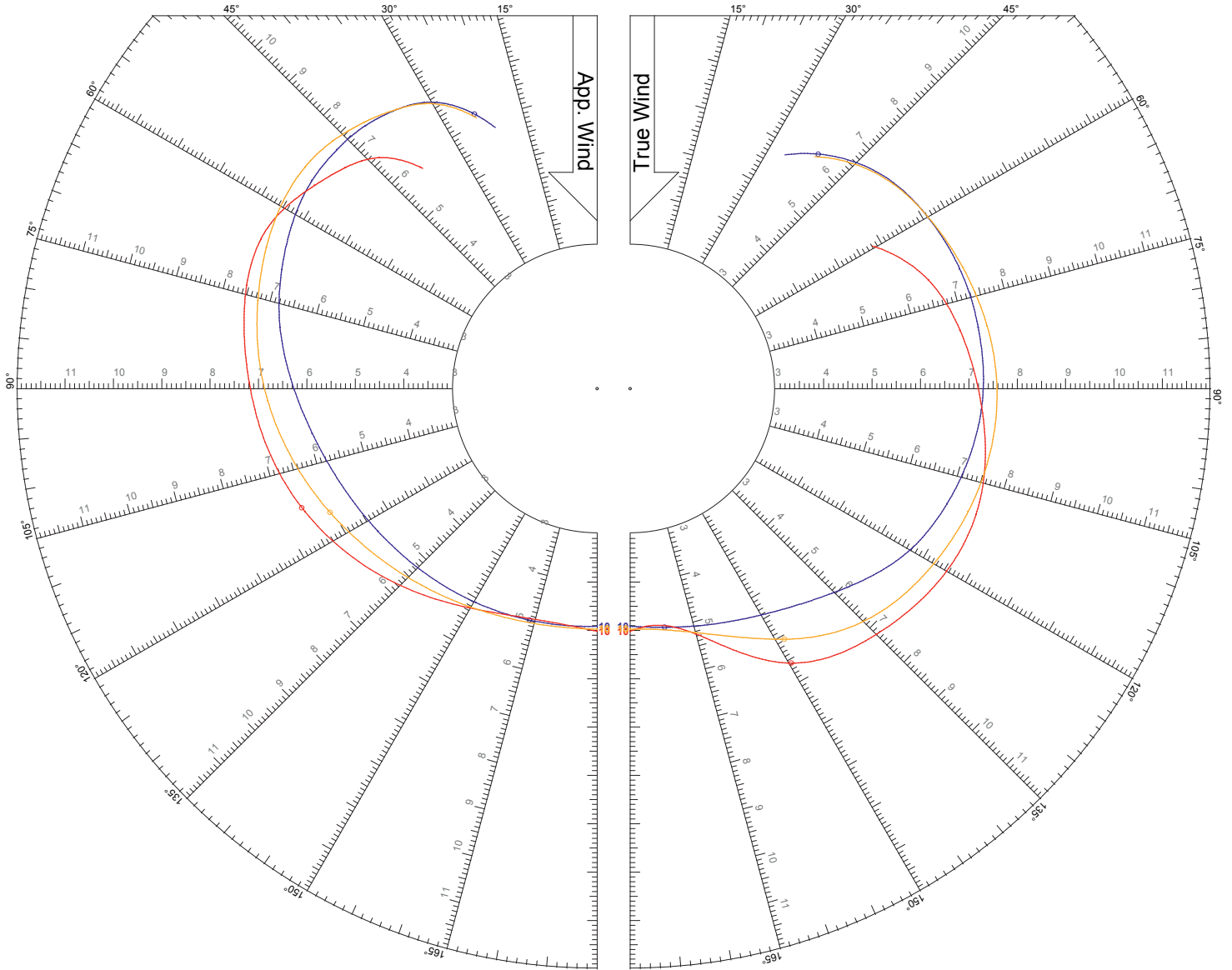
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 10 kts

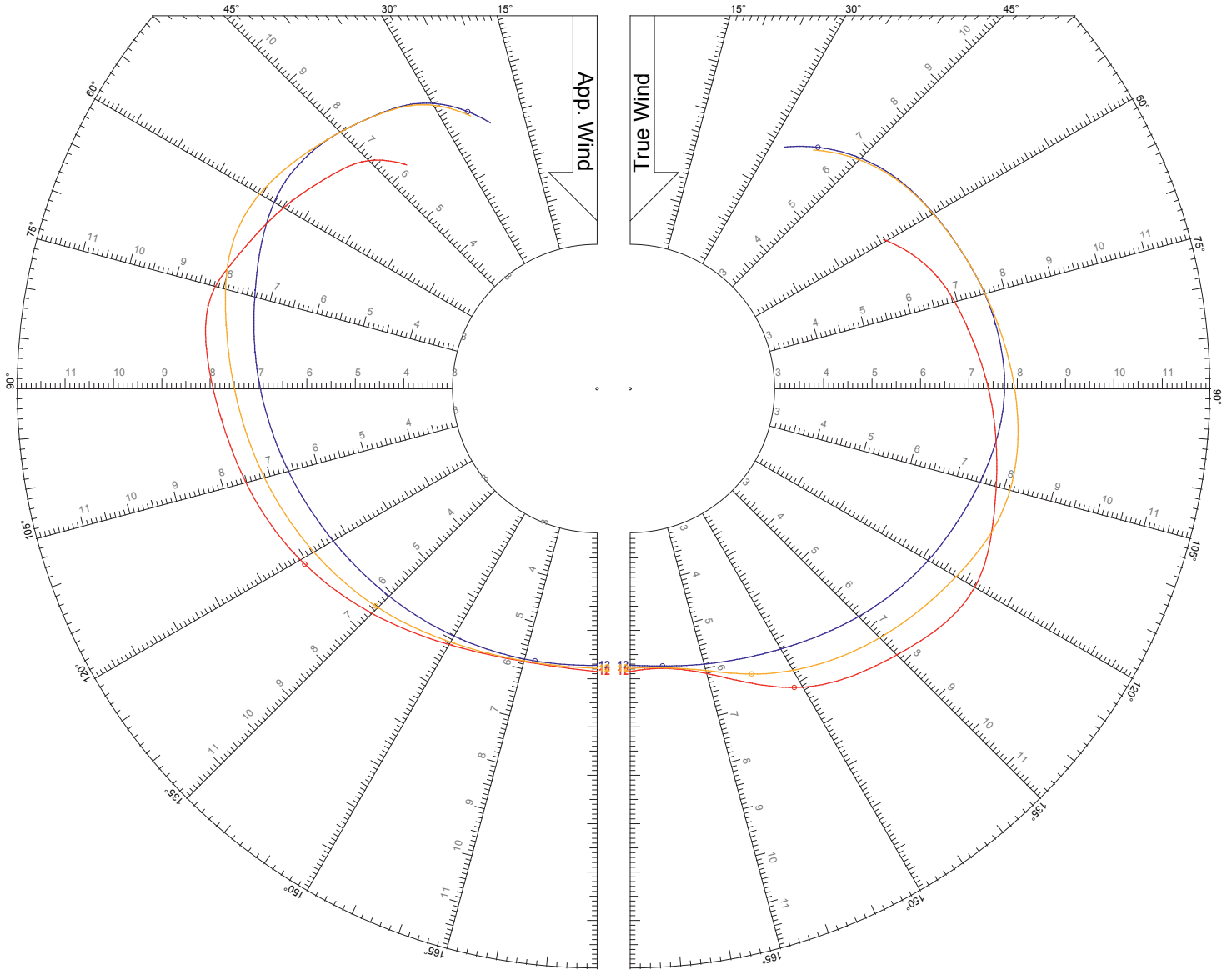
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 12 kts

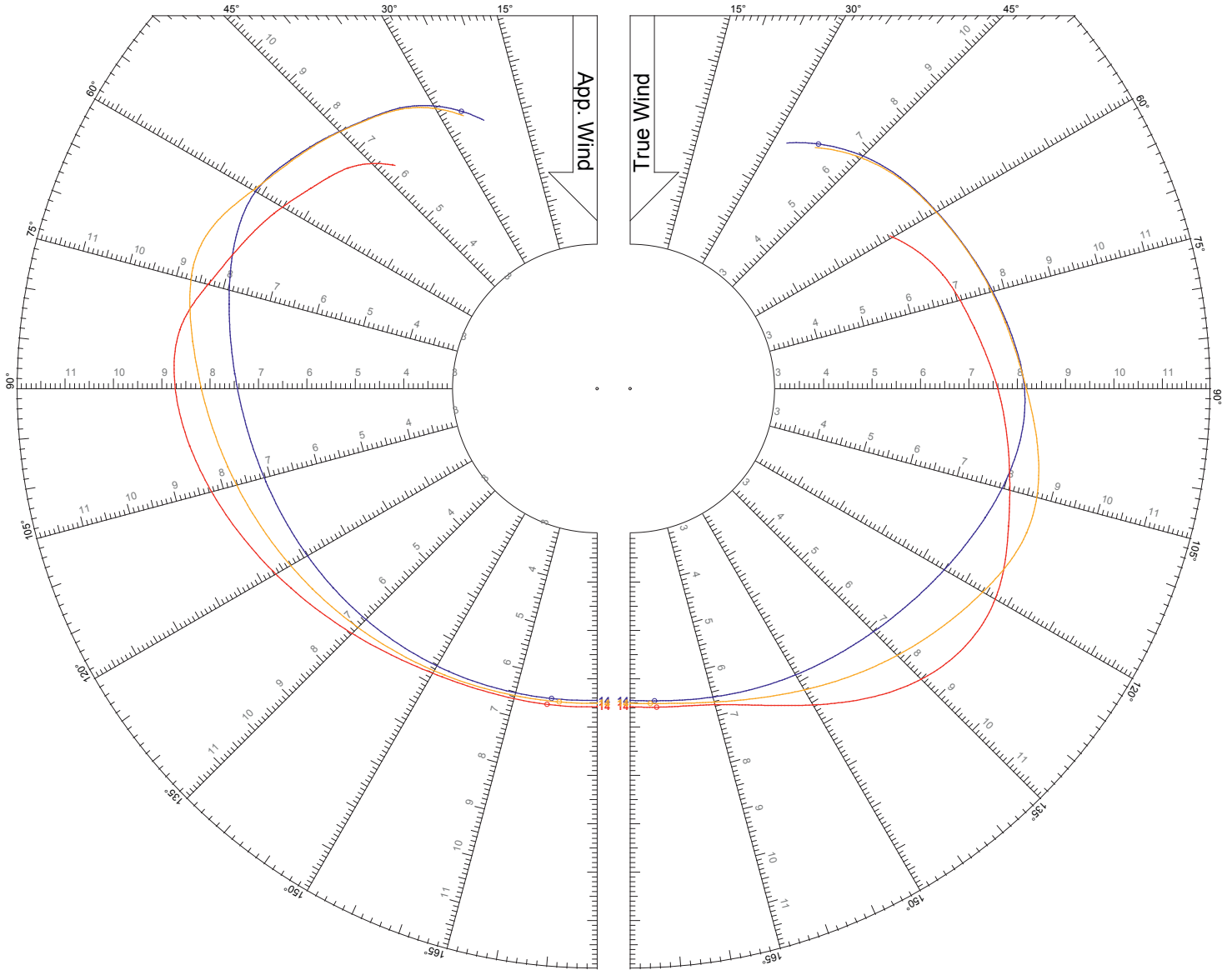
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 14 kts

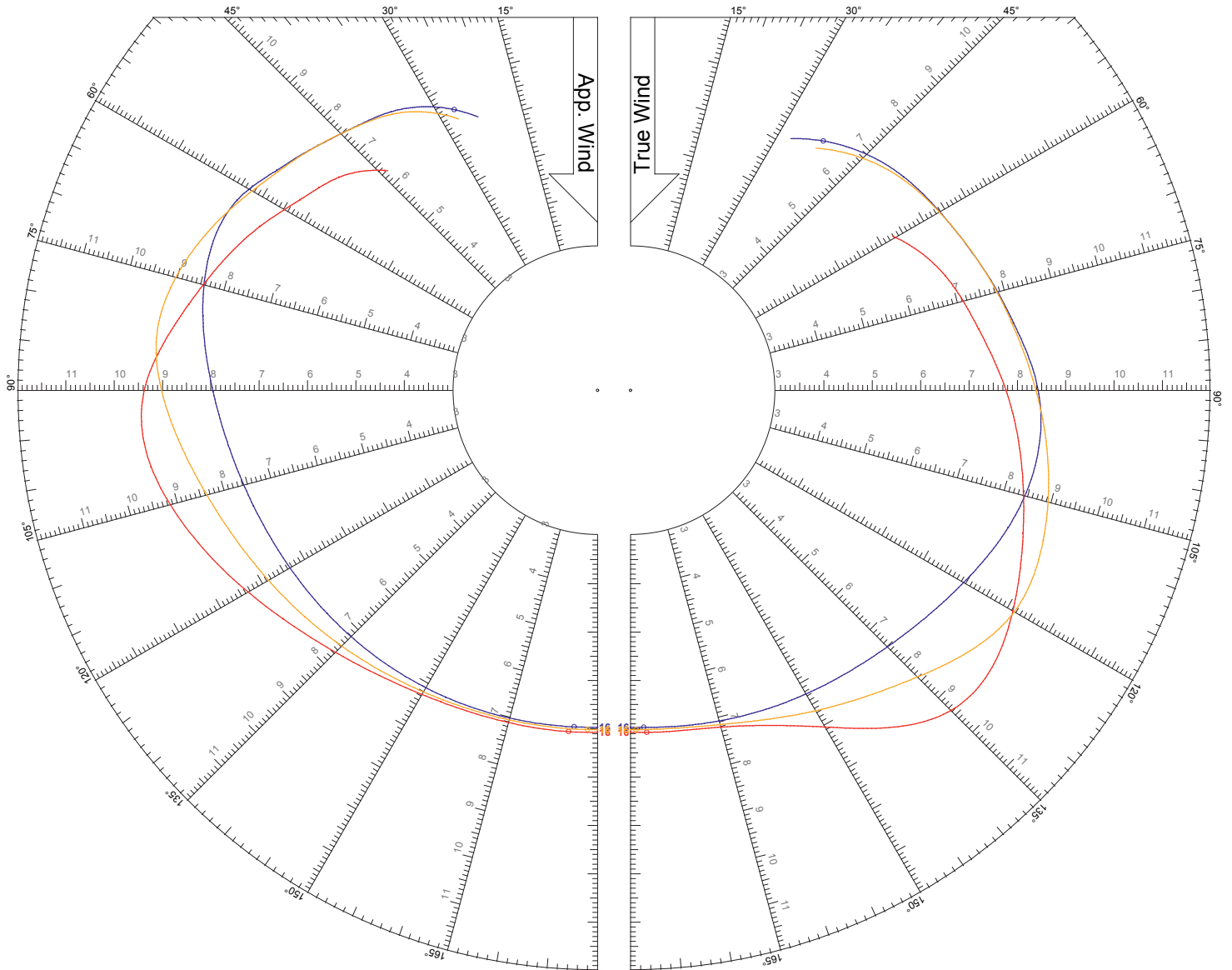
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 16 kts

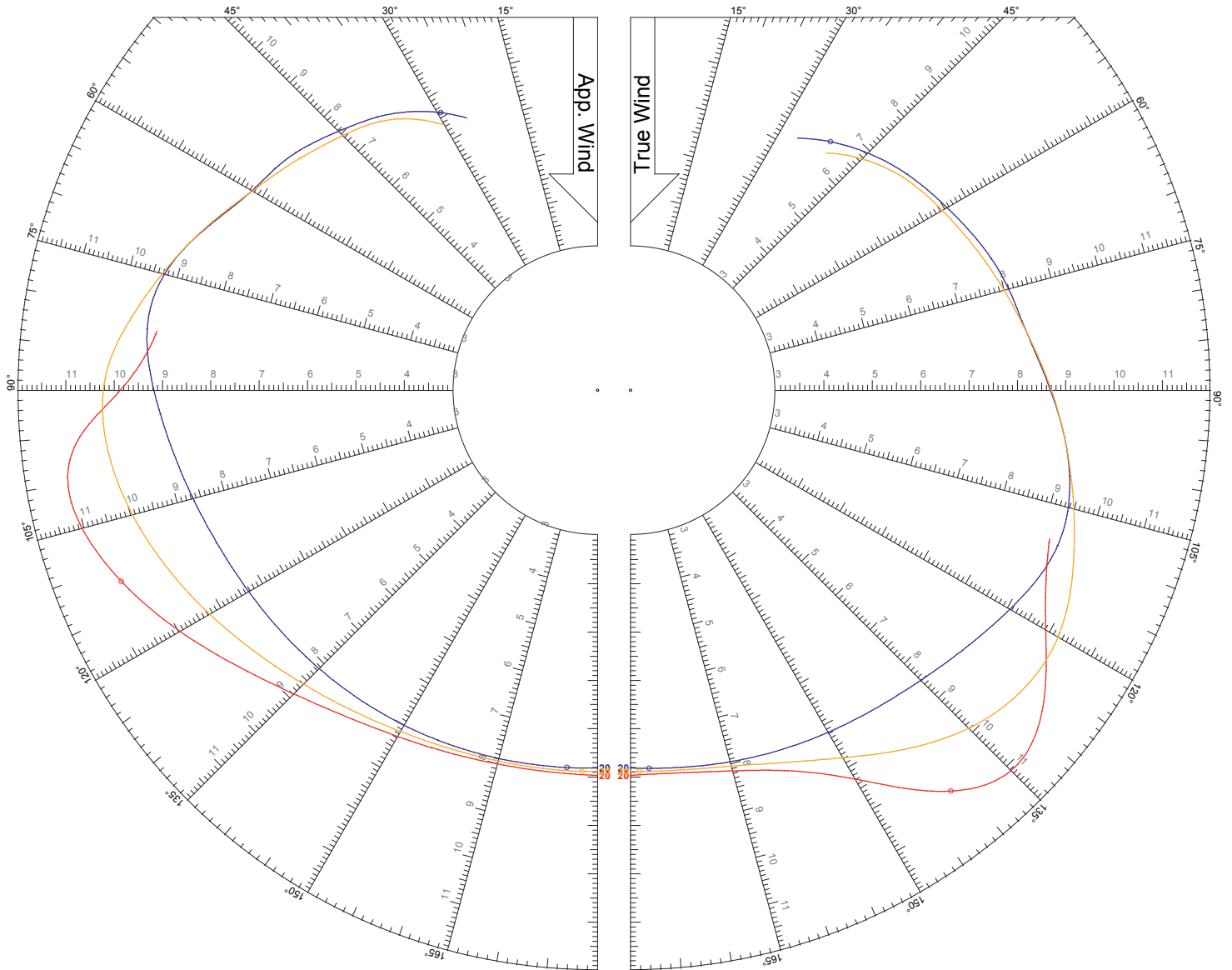
Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



TWS: 20 kts

Jib

Asymmetric Spinnaker on Centerline

Code Zero

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



World Leader in Rating Technology
© Offshore Racing Congress 2018
www.orc.org

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	5.24	3.85	10.47	22.9°	12.3°	1.00	0.95
52°	5.87	3.62	10.67	26.3°	13.9°	1.00	0.96
60°	6.24	3.12	10.60	29.4°	14.3°	1.00	0.97
70°	6.48	2.22	10.23	33.5°	13.7°	1.00	0.98
75°	6.54	1.69	9.95	35.6°	13.0°	1.00	0.99
80°	6.57	1.14	9.63	37.8°	12.1°	1.00	0.99
90°	6.56	0.00	8.89	42.5°	10.6°	1.00	1.00
110°	6.05	2.07	6.91	54.6°	8.4°	1.00	1.00
120°	5.90	2.95	5.95	60.8°	6.9°	1.00	1.00
135°	5.29	3.74	4.37	76.1°	4.7°	1.00	1.00
150°	4.43	3.84	3.10	104.3°	3.1°	1.00	1.00
165°	3.31	3.19	2.93	148.1°	2.6°	1.00	1.00
180°	3.12	3.12	2.88	180.0°	2.3°	1.00	1.00
144.2° (r)	4.79	3.88	3.51	91.3°	3.6°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	5.92	4.50	13.08	23.4°	20.6°	1.00	0.89
52°	6.64	4.09	13.17	28.6°	22.4°	1.00	0.88
60°	6.89	3.45	12.91	32.5°	23.6°	1.00	0.92
70°	7.08	2.42	12.36	37.5°	22.2°	1.00	0.95
75°	7.13	1.85	12.02	40.0°	20.8°	1.00	0.96
80°	7.16	1.24	11.63	42.7°	19.2°	1.00	0.97
90°	7.16	0.00	10.74	48.2°	15.4°	1.00	1.00
110°	7.04	2.41	8.66	60.2°	14.8°	1.00	1.00
120°	6.95	3.47	7.53	67.0°	9.9°	1.00	1.00
135°	6.51	4.60	5.72	81.4°	5.9°	1.00	1.00
150°	5.60	4.85	4.22	108.4°	3.6°	1.00	1.00
165°	4.33	4.19	3.97	148.6°	2.8°	1.00	1.00
180°	4.11	4.11	3.89	180.0°	2.3°	1.00	1.00
147.9° (r)	5.73	4.85	4.37	103.9°	3.8°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.7° (b)	6.22	4.85	15.35	24.1°	22.3°	1.00	0.87
52°	6.91	4.26	15.26	31.1°	24.2°	1.00	0.92
60°	7.11	3.55	14.88	35.6°	24.8°	1.00	0.74
70°	7.32	2.50	14.27	41.2°	25.2°	1.00	0.80
75°	7.41	1.92	13.90	44.0°	25.1°	1.00	0.85
80°	7.49	1.30	13.50	46.9°	25.5°	1.00	0.91
90°	7.58	0.00	12.55	52.8°	20.8°	1.00	0.98
110°	7.61	2.60	10.29	66.0°	21.5°	1.00	0.97
120°	7.55	3.78	9.03	73.6°	14.8°	1.00	1.00
135°	7.19	5.08	7.07	89.0°	7.0°	1.00	1.00
150°	6.55	5.68	5.43	112.8°	4.1°	1.00	1.00
165°	5.25	5.07	5.11	149.6°	3.1°	1.00	1.00
180°	5.02	5.02	4.98	180.0°	2.4°	1.00	1.00
149.6° (r)	6.58	5.68	5.46	112.0°	4.2°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.9° (b)	6.32	4.99	17.43	25.0°	23.4°	1.00	0.72
52°	7.03	4.33	17.24	33.3°	25.2°	1.00	0.77
60°	7.24	3.62	16.83	38.1°	25.5°	1.00	0.82
70°	7.48	2.56	16.16	44.2°	26.1°	0.98	0.70
75°	7.59	1.97	15.78	47.3°	26.5°	0.97	0.78
80°	7.72	1.34	15.35	50.3°	26.9°	1.00	0.78
90°	7.95	0.00	14.39	56.5°	26.5°	1.00	0.93
110°	8.07	2.76	11.95	70.6°	15.5°	1.00	1.00
120°	8.22	4.11	10.63	77.9°	21.6°	1.00	1.00
135°	7.79	5.51	8.51	94.7°	8.4°	1.00	1.00
150°	7.13	6.18	6.83	118.5°	4.6°	1.00	1.00
165°	6.10	5.89	6.31	150.5°	3.5°	1.00	1.00
180°	5.85	5.85	6.15	180.0°	2.5°	1.00	1.00
151.2° (r)	7.05	6.18	6.74	121.0°	4.4°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.6° (b)	6.38	5.06	19.45	26.1°	22.4°	0.94	0.60
52°	7.09	4.37	19.20	35.1°	25.5°	1.00	0.65
60°	7.32	3.66	18.76	40.3°	26.1°	1.00	0.70
70°	7.61	2.60	18.08	46.7°	26.8°	1.00	0.77
75°	7.76	2.01	17.67	49.9°	27.1°	1.00	0.82
80°	7.90	1.37	17.23	53.1°	27.2°	1.00	0.88
90°	8.19	0.00	16.22	59.7°	28.3°	0.99	0.85
110°	8.72	2.98	13.73	73.4°	21.7°	1.00	1.00
120°	8.71	4.36	12.24	82.0°	22.0°	0.96	0.94
135°	8.50	6.01	10.00	98.0°	11.0°	1.00	1.00
150°	7.55	6.54	8.36	123.1°	5.2°	1.00	1.00
165°	6.77	6.54	7.67	151.8°	4.0°	1.00	1.00
180°	6.58	6.58	7.42	180.0°	2.5°	1.00	1.00
175.2° (r)	6.61	6.59	7.43	171.0°	3.0°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.7° (b)	6.52	5.16	21.53	27.1°	22.3°	0.54	0.60
52°	7.17	4.41	21.18	36.5°	23.7°	0.73	0.60
60°	7.38	3.69	20.70	42.0°	23.8°	0.86	0.60
70°	7.69	2.63	19.98	48.8°	26.6°	0.83	0.76
75°	7.86	2.03	19.57	52.2°	27.9°	1.00	0.72
80°	8.04	1.40	19.12	55.5°	28.3°	1.00	0.77
90°	8.43	0.00	18.09	62.2°	28.6°	1.00	0.92
110°	9.08	3.11	15.46	76.5°	22.1°	0.96	0.94
120°	9.16	4.58	13.91	85.2°	18.4°	1.00	1.00
135°	9.37	6.62	11.48	99.8°	15.1°	1.00	1.00
150°	8.04	6.96	9.89	126.0°	5.9°	1.00	1.00
165°	7.21	6.97	9.22	153.3°	4.5°	1.00	1.00
180°	7.07	7.07	8.93	180.0°	2.7°	1.00	1.00
177.3° (r)	7.08	7.08	8.93	175.2°	3.0°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.8° (b)	6.60	5.14	25.48	29.5°	25.5°	0.44	0.60
52°	7.26	4.47	25.13	38.8°	26.9°	0.46	0.60
60°	7.56	3.78	24.66	44.6°	27.7°	0.48	0.60
70°	7.94	2.72	23.91	51.8°	25.9°	0.50	0.60
75°	8.10	2.10	23.44	55.5°	25.0°	0.62	0.60
80°	8.22	1.43	22.91	59.3°	25.0°	0.80	0.60
90°	8.71	0.00	21.81	66.5°	29.6°	0.83	0.85
110°	9.76	3.34	19.02	81.2°	30.3°	0.98	0.93
120°	10.21	5.10	17.32	89.3°	22.1°	0.94	0.94
135°	11.13	7.87	14.46	102.0°	22.2°	0.99	0.94
150°	9.28	8.04	12.83	128.8°	7.8°	1.00	1.00
165°	8.15	7.87	12.31	155.1°	5.8°	1.00	1.00
180°	7.96	7.96	12.04	180.0°	2.9°	1.00	1.00
141.4° (r)	10.61	8.29	13.45	111.9°	13.9°	1.00	0.96

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



World Leader in Rating Technology
© Offshore Racing Congress 2018
www.orc.org

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
41.9° (b)	4.98	3.71	9.96	22.1°	10.1°	1.00	0.99
52°	5.59	3.44	10.12	25.9°	10.4°	1.00	1.00
60°	5.87	2.93	9.99	29.2°	10.2°	1.00	1.00
70°	6.05	2.07	9.59	33.5°	9.7°	1.00	1.00
75°	6.08	1.57	9.32	35.7°	9.4°	1.00	1.00
80°	6.08	1.06	8.99	38.1°	9.1°	1.00	1.00
90°	6.01	0.00	8.25	43.3°	8.3°	1.00	1.00
110°	5.39	1.84	6.35	57.3°	6.2°	1.00	1.00
120°	4.89	2.44	5.35	67.8°	4.6°	1.00	1.00
135°	4.01	2.84	4.07	90.8°	3.3°	1.00	1.00
150°	3.44	2.98	3.26	118.2°	2.8°	1.00	1.00
165°	3.17	3.07	2.78	147.9°	2.5°	1.00	1.00
180°	3.05	3.05	2.68	180.0°	2.3°	1.00	1.00
168.1° (r)	3.14	3.07	2.73	154.5°	2.5°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	5.87	4.46	12.56	22.1°	16.5°	1.00	0.97
52°	6.55	4.03	12.58	26.9°	17.7°	1.00	1.00
60°	6.75	3.38	12.29	30.9°	16.4°	1.00	1.00
70°	6.86	2.35	11.72	36.2°	14.1°	1.00	1.00
75°	6.88	1.78	11.38	39.0°	12.9°	1.00	1.00
80°	6.88	1.19	11.00	41.8°	11.7°	1.00	1.00
90°	6.86	0.00	10.16	47.5°	10.1°	1.00	1.00
110°	6.40	2.19	8.05	62.0°	7.6°	1.00	1.00
120°	5.91	2.96	6.91	72.4°	6.1°	1.00	1.00
135°	5.07	3.59	5.43	93.8°	4.1°	1.00	1.00
150°	4.49	3.89	4.39	119.3°	3.3°	1.00	1.00
165°	4.18	4.04	3.76	148.3°	2.8°	1.00	1.00
180°	4.02	4.02	3.61	180.0°	2.4°	1.00	1.00
169.9° (r)	4.11	4.05	3.66	158.5°	2.7°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.7° (b)	6.22	4.85	14.62	21.9°	22.3°	1.00	0.87
52°	6.91	4.26	14.40	28.0°	24.2°	1.00	0.92
60°	7.10	3.55	14.00	32.4°	23.3°	1.00	0.95
70°	7.25	2.48	13.36	38.3°	21.1°	1.00	0.99
75°	7.29	1.89	13.01	41.5°	19.4°	1.00	1.00
80°	7.30	1.27	12.63	44.9°	17.2°	1.00	1.00
90°	7.30	0.00	11.79	51.8°	13.0°	1.00	1.00
110°	6.97	2.38	9.61	67.4°	8.6°	1.00	1.00
120°	6.68	3.34	8.44	77.1°	7.2°	1.00	1.00
135°	5.96	4.21	6.81	97.0°	5.1°	1.00	1.00
150°	5.41	4.68	5.59	121.2°	4.0°	1.00	1.00
165°	5.09	4.91	4.81	149.2°	3.2°	1.00	1.00
180°	4.92	4.92	4.63	180.0°	2.5°	1.00	1.00
171.8° (r)	4.99	4.93	4.66	163.0°	2.8°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.9° (b)	6.32	4.99	16.47	22.6°	23.4°	1.00	0.72
52°	7.03	4.33	16.10	29.9°	25.2°	1.00	0.77
60°	7.24	3.62	15.59	34.4°	25.5°	1.00	0.82
70°	7.48	2.56	14.80	40.0°	26.0°	1.00	0.90
75°	7.59	1.96	14.42	43.2°	25.2°	1.00	0.94
80°	7.67	1.33	14.06	46.7°	23.3°	1.00	0.97
90°	7.74	0.00	13.29	54.4°	18.3°	1.00	1.00
110°	7.36	2.52	11.17	72.1°	9.6°	1.00	1.00
120°	7.11	3.56	9.95	82.1°	8.1°	1.00	1.00
135°	6.67	4.72	8.23	100.3°	6.4°	1.00	1.00
150°	6.22	5.39	6.83	123.1°	4.9°	1.00	1.00
165°	5.90	5.70	5.95	150.2°	3.6°	1.00	1.00
180°	5.72	5.72	5.73	180.0°	2.6°	1.00	1.00
173.3° (r)	5.78	5.74	5.75	166.6°	3.0°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.6° (b)	6.38	5.06	18.29	23.8°	22.4°	0.94	0.60
52°	7.09	4.37	17.77	31.6°	25.5°	1.00	0.65
60°	7.32	3.66	17.20	36.3°	26.1°	1.00	0.70
70°	7.61	2.60	16.33	42.3°	26.8°	1.00	0.77
75°	7.76	2.01	15.86	45.3°	27.1°	1.00	0.82
80°	7.90	1.37	15.36	48.5°	27.2°	1.00	0.88
90°	8.15	0.00	14.57	56.0°	23.9°	1.00	0.98
110°	7.81	2.67	12.76	75.3°	11.0°	1.00	1.00
120°	7.49	3.75	11.50	86.1°	9.1°	1.00	1.00
135°	7.11	5.03	9.72	104.2°	7.5°	1.00	1.00
150°	6.84	5.92	8.19	125.6°	6.0°	1.00	1.00
165°	6.60	6.38	7.18	151.3°	4.2°	1.00	1.00
180°	6.45	6.45	6.92	180.0°	2.7°	1.00	1.00
175.5° (r)	6.48	6.46	6.92	171.3°	3.1°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
37.7° (b)	6.52	5.16	20.01	24.7°	22.3°	0.54	0.60
52°	7.17	4.41	19.48	33.3°	23.7°	0.73	0.60
60°	7.38	3.69	18.94	38.5°	23.8°	0.86	0.60
70°	7.69	2.63	17.86	44.3°	27.2°	1.00	0.67
75°	7.86	2.03	17.33	47.4°	27.9°	1.00	0.72
80°	8.04	1.40	16.78	50.6°	28.3°	1.00	0.77
90°	8.43	0.00	15.65	57.4°	28.6°	1.00	0.92
110°	8.31	2.84	14.25	77.5°	14.3°	1.00	1.00
120°	7.95	3.98	13.07	88.7°	10.2°	1.00	1.00
135°	7.51	5.31	11.24	107.3°	8.4°	1.00	1.00
150°	7.25	6.28	9.68	128.3°	7.0°	1.00	1.00
165°	7.08	6.84	8.61	152.8°	4.9°	1.00	1.00
180°	6.97	6.97	8.30	180.0°	2.9°	1.00	1.00
177.8° (r)	6.98	6.97	8.30	175.9°	3.2°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.8° (b)	6.60	5.14	23.15	26.3°	25.5°	0.44	0.60
52°	7.26	4.47	22.46	34.7°	26.9°	0.46	0.60
60°	7.56	3.78	21.78	40.0°	27.7°	0.48	0.60
70°	7.94	2.72	21.05	47.5°	25.9°	0.50	0.60
75°	8.10	2.10	20.65	51.4°	25.0°	0.62	0.60
80°	8.22	1.43	20.14	55.4°	25.0°	0.80	0.60
90°	8.69	0.00	18.14	61.4°	31.3°	1.00	0.74
110°	9.40	3.22	16.40	79.8°	25.0°	1.00	1.00
120°	9.06	4.53	15.90	91.8°	16.3°	1.00	1.00
135°	8.49	6.00	14.24	110.8°	10.8°	1.00	1.00
150°	8.17	7.07	12.62	131.6°	8.8°	1.00	1.00
165°	7.95	7.68	11.56	154.9°	6.7°	1.00	1.00
180°	7.81	7.81	11.28	180.0°	3.4°	1.00	1.00
177.2° (r)	7.83	7.82	11.27	175.2°	4.0°	1.00	1.00

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



World Leader in Rating Technology
© Offshore Racing Congress 2018
www.orc.org

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	4.18	2.09	8.69	35.2°	7.9°	1.00	0.95
70°	5.04	1.73	8.87	37.5°	9.7°	1.00	0.96
75°	5.37	1.39	8.83	38.8°	10.7°	1.00	0.96
80°	5.64	0.98	8.70	40.2°	11.4°	1.00	0.96
90°	5.98	0.00	8.27	43.6°	11.4°	1.00	0.96
110°	6.05	2.07	6.77	53.1°	8.4°	1.00	1.00
120°	5.90	2.95	5.84	59.3°	6.9°	1.00	1.00
135°	5.29	3.74	4.29	74.5°	4.7°	1.00	1.00
150°	4.43	3.84	2.99	102.3°	3.1°	1.00	1.00
165°	3.31	3.19	2.78	147.1°	2.6°	1.00	1.00
180°	3.12	3.12	2.71	180.0°	2.3°	1.00	1.00
144.2° (r)	4.79	3.88	3.42	89.4°	3.6°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	5.28	2.64	11.22	35.2°	15.5°	1.00	0.95
70°	6.18	2.11	11.14	37.6°	20.5°	1.00	0.94
75°	6.46	1.67	10.92	39.3°	21.9°	1.00	0.92
80°	6.65	1.15	10.65	41.4°	22.1°	1.00	0.90
90°	6.93	0.00	9.98	46.0°	21.5°	1.00	0.95
110°	7.04	2.41	8.30	58.0°	14.8°	1.00	1.00
120°	6.95	3.47	7.30	65.2°	9.9°	1.00	1.00
135°	6.51	4.60	5.57	79.6°	5.9°	1.00	1.00
150°	5.60	4.85	4.06	106.6°	3.6°	1.00	1.00
165°	4.33	4.19	3.77	147.7°	2.8°	1.00	1.00
180°	4.11	4.11	3.66	180.0°	2.3°	1.00	1.00
147.9° (r)	5.73	4.85	4.23	102.1°	3.8°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	5.86	2.93	13.16	35.9°	21.9°	0.95	0.88
70°	6.56	2.24	12.87	40.2°	22.0°	0.90	0.85
75°	6.77	1.75	12.58	42.7°	22.0°	0.90	0.84
80°	6.93	1.20	12.23	45.4°	22.1°	0.90	0.85
90°	7.20	0.00	11.41	50.9°	22.0°	0.91	0.92
110°	7.61	2.60	9.47	62.9°	21.5°	1.00	0.97
120°	7.55	3.78	8.55	71.5°	14.8°	1.00	1.00
135°	7.19	5.08	6.82	87.2°	7.0°	1.00	1.00
150°	6.55	5.68	5.21	111.2°	4.1°	1.00	1.00
165°	5.25	5.07	4.85	148.7°	3.1°	1.00	1.00
180°	5.02	5.02	4.69	180.0°	2.4°	1.00	1.00
149.6° (r)	6.58	5.68	5.24	110.3°	4.2°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	6.12	3.06	14.93	37.7°	22.0°	0.84	0.85
70°	6.76	2.31	14.51	42.9°	22.0°	0.80	0.84
75°	6.94	1.80	14.16	45.8°	22.0°	0.81	0.85
80°	7.09	1.23	13.76	48.8°	22.0°	0.82	0.85
90°	7.40	0.00	12.87	54.9°	22.0°	0.82	0.93
110°	7.99	2.73	10.80	67.9°	22.0°	0.93	0.93
120°	8.22	4.11	9.63	75.3°	21.6°	1.00	1.00
135°	7.79	5.51	8.15	93.1°	8.4°	1.00	1.00
150°	7.13	6.18	6.50	116.9°	4.6°	1.00	1.00
165°	6.10	5.89	5.95	149.7°	3.5°	1.00	1.00
180°	5.85	5.85	5.78	180.0°	2.5°	1.00	1.00
151.2° (r)	7.05	6.18	6.40	119.4°	4.4°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	6.27	3.13	16.61	39.4°	22.1°	0.75	0.85
70°	6.88	2.35	16.10	45.1°	22.0°	0.73	0.85
75°	7.06	1.83	15.71	48.3°	22.0°	0.74	0.86
80°	7.22	1.25	15.26	51.5°	22.0°	0.72	0.92
90°	7.60	0.00	14.35	58.0°	21.9°	0.74	0.94
110°	8.32	2.85	12.18	72.0°	22.0°	0.86	0.93
120°	8.71	4.36	10.97	79.5°	22.0°	0.96	0.94
135°	8.50	6.01	9.47	96.6°	11.0°	1.00	1.00
150°	7.55	6.54	7.95	121.8°	5.2°	1.00	1.00
165°	6.77	6.54	7.24	151.1°	4.0°	1.00	1.00
180°	6.58	6.58	6.98	180.0°	2.5°	1.00	1.00
175.2° (r)	6.61	6.59	6.99	170.7°	3.0°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	6.32	3.16	18.25	40.9°	22.4°	0.71	0.77
70°	6.93	2.37	17.69	47.1°	22.4°	0.71	0.74
75°	7.12	1.84	17.28	50.5°	22.3°	0.71	0.75
80°	7.31	1.27	16.83	54.0°	22.3°	0.71	0.77
90°	7.76	0.00	15.86	60.7°	22.1°	0.71	0.85
110°	8.64	2.96	13.60	75.2°	22.0°	0.80	0.93
120°	9.13	4.56	12.33	83.0°	22.1°	0.90	0.94
135°	9.37	6.62	10.67	98.5°	15.1°	1.00	1.00
150°	8.04	6.96	9.40	124.9°	5.9°	1.00	1.00
165°	7.21	6.97	8.73	152.7°	4.5°	1.00	1.00
180°	7.07	7.07	8.43	180.0°	2.7°	1.00	1.00
177.3° (r)	7.08	7.08	8.43	175.0°	3.0°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
60°	-0.01	-0.01	17.40	57.7°	24.3°	0.71	0.62
70°	-0.01	0.00	17.18	68.3°	24.3°	0.71	0.62
75°	-0.01	0.00	17.09	73.7°	24.3°	0.71	0.62
80°	-0.01	0.00	17.03	79.1°	24.3°	0.71	0.62
90°	-0.01	0.00	16.98	90.0°	24.3°	0.71	0.62
110°	9.21	3.15	16.46	80.1°	22.3°	0.71	0.91
120°	9.91	4.96	15.11	88.1°	22.1°	0.79	0.94
135°	11.13	7.87	12.82	101.1°	22.2°	0.99	0.94
150°	9.28	8.04	12.17	128.0°	7.8°	1.00	1.00
165°	8.15	7.87	11.68	154.7°	5.8°	1.00	1.00
180°	7.96	7.96	11.41	180.0°	2.9°	1.00	1.00
141.4° (r)	10.61	8.29	12.55	111.0°	13.9°	1.00	0.96

SPEED GUIDE

COMPOSITE KEEL WITH LEAD BULB



World Leader in Rating Technology
© Offshore Racing Congress 2018
www.orc.org

TWS = 6 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
42.8° (b)	5.24	3.85	10.17	21.9°	12.3°	1.00	0.95
52°	5.87	3.62	10.36	24.9°	13.9°	1.00	0.96
60°	6.24	3.12	10.28	27.8°	14.3°	1.00	0.97
70°	6.48	2.22	9.91	31.7°	13.7°	1.00	0.98
75°	6.54	1.69	9.65	33.8°	13.0°	1.00	0.99
80°	6.57	1.14	9.35	36.0°	12.1°	1.00	0.99
90°	6.56	0.00	8.64	40.6°	10.6°	1.00	1.00
110°	5.93	2.03	6.65	53.4°	7.7°	1.00	1.00
120°	5.56	2.78	5.64	61.6°	5.2°	1.00	1.00
135°	4.88	3.45	4.14	78.7°	3.7°	1.00	1.00
150°	3.95	3.42	3.05	109.7°	2.8°	1.00	1.00
165°	3.29	3.17	2.73	146.9°	2.4°	1.00	1.00
180°	3.09	3.09	2.68	180.0°	2.3°	1.00	1.00
142.0° (r)	4.46	3.52	3.54	91.2°	3.2°	1.00	1.00

TWS = 8 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	5.92	4.50	12.55	21.5°	20.6°	1.00	0.89
52°	6.64	4.09	12.56	26.0°	22.4°	1.00	0.88
60°	6.89	3.45	12.24	29.3°	23.6°	1.00	0.92
70°	7.08	2.42	11.69	34.3°	22.2°	1.00	0.95
75°	7.13	1.85	11.38	36.9°	20.8°	1.00	0.96
80°	7.16	1.24	11.03	39.8°	19.2°	1.00	0.97
90°	7.16	0.00	10.25	45.7°	15.4°	1.00	1.00
110°	6.82	2.33	8.27	59.5°	8.3°	1.00	1.00
120°	6.70	3.35	7.19	66.5°	6.4°	1.00	1.00
135°	6.00	4.24	5.44	83.9°	4.4°	1.00	1.00
150°	5.05	4.37	4.15	112.6°	3.1°	1.00	1.00
165°	4.31	4.16	3.71	147.5°	2.6°	1.00	1.00
180°	4.07	4.07	3.61	180.0°	2.4°	1.00	1.00
144.6° (r)	5.41	4.41	4.52	100.7°	3.5°	1.00	1.00

TWS = 10 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
39.2° (b)	6.18	4.79	14.55	22.1°	23.0°	1.00	0.71
52°	6.89	4.24	14.36	28.0°	24.2°	1.00	0.71
60°	7.11	3.55	13.93	32.0°	24.8°	1.00	0.74
70°	7.32	2.50	13.23	37.2°	25.2°	1.00	0.80
75°	7.41	1.92	12.83	39.9°	25.1°	1.00	0.85
80°	7.49	1.30	12.39	42.5°	25.5°	1.00	0.91
90°	7.58	0.00	11.66	49.5°	20.8°	1.00	0.98
110°	7.44	2.54	9.75	64.7°	11.2°	1.00	1.00
120°	7.24	3.62	8.58	73.4°	7.6°	1.00	1.00
135°	6.81	4.82	6.75	89.7°	5.2°	1.00	1.00
150°	5.98	5.18	5.32	115.9°	3.5°	1.00	1.00
165°	5.22	5.04	4.77	148.6°	2.8°	1.00	1.00
180°	4.97	4.97	4.63	180.0°	2.5°	1.00	1.00
148.4° (r)	6.09	5.18	5.43	112.6°	3.7°	1.00	1.00

TWS = 12 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.4° (b)	6.29	4.93	16.39	23.0°	23.7°	0.97	0.62
52°	7.01	4.31	16.05	29.9°	25.0°	0.97	0.62
60°	7.23	3.62	15.55	34.3°	25.7°	0.99	0.62
70°	7.48	2.56	14.76	39.9°	26.1°	0.98	0.70
75°	7.59	1.97	14.30	42.7°	26.5°	0.97	0.78
80°	7.72	1.34	13.84	45.7°	26.9°	1.00	0.78
90°	7.95	0.00	12.87	51.9°	26.5°	1.00	0.93
110°	8.07	2.76	11.17	68.2°	15.5°	1.00	1.00
120°	7.78	3.89	10.02	78.3°	9.7°	1.00	1.00
135°	7.29	5.16	8.13	95.9°	5.9°	1.00	1.00
150°	6.73	5.83	6.60	119.5°	4.0°	1.00	1.00
165°	6.04	5.83	5.92	149.7°	3.0°	1.00	1.00
180°	5.79	5.79	5.74	180.0°	2.6°	1.00	1.00
156.9° (r)	6.42	5.90	6.15	132.9°	3.5°	1.00	1.00

TWS = 14 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.6° (b)	6.36	4.97	18.12	24.2°	23.6°	0.89	0.62
52°	7.06	4.35	17.66	31.6°	25.0°	0.87	0.68
60°	7.30	3.65	17.09	36.3°	25.6°	0.86	0.73
70°	7.59	2.60	16.26	42.2°	26.4°	0.90	0.74
75°	7.74	2.00	15.79	45.3°	26.9°	0.92	0.75
80°	7.87	1.37	15.27	48.4°	27.4°	0.93	0.80
90°	8.19	0.00	14.17	54.7°	28.3°	0.99	0.85
110°	8.72	2.98	12.35	70.3°	21.7°	1.00	1.00
120°	8.41	4.21	11.41	81.3°	13.4°	1.00	1.00
135°	7.80	5.52	9.57	100.1°	6.7°	1.00	1.00
150°	7.20	6.23	8.04	123.6°	4.6°	1.00	1.00
165°	6.71	6.48	7.20	151.1°	3.3°	1.00	1.00
180°	6.51	6.51	6.94	180.0°	2.7°	1.00	1.00
176.3° (r)	6.53	6.51	6.94	172.9°	3.0°	1.00	1.00

TWS = 16 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
38.9° (b)	6.41	4.99	19.81	25.4°	23.5°	0.83	0.62
52°	7.12	4.38	19.31	33.0°	25.1°	0.84	0.62
60°	7.37	3.69	18.72	38.0°	25.8°	0.86	0.62
70°	7.69	2.63	17.77	44.2°	26.6°	0.83	0.76
75°	7.85	2.03	17.27	47.4°	27.1°	0.86	0.77
80°	8.01	1.39	16.73	50.8°	27.5°	0.88	0.79
90°	8.39	0.00	15.57	57.4°	28.5°	0.93	0.85
110°	9.08	3.11	13.76	73.5°	22.1°	0.96	0.94
120°	9.16	4.58	12.63	83.0°	18.4°	1.00	1.00
135°	8.39	5.93	11.02	102.9°	7.8°	1.00	1.00
150°	7.65	6.63	9.51	126.4°	5.1°	1.00	1.00
165°	7.16	6.91	8.68	152.7°	3.7°	1.00	1.00
180°	7.02	7.02	8.35	180.0°	2.9°	1.00	1.00
179.0° (r)	7.02	7.02	8.35	178.2°	3.0°	1.00	1.00

TWS = 20 Kts							
TWA	BTV	VMG	AWS	AWA	Heel	Reef	Flat
40.5° (b)	6.44	4.90	22.99	28.2°	23.1°	0.70	0.69
52°	7.15	4.40	22.40	34.9°	26.6°	0.75	0.62
60°	7.44	3.72	21.71	40.3°	27.3°	0.77	0.62
70°	7.80	2.67	20.61	47.1°	28.2°	0.74	0.79
75°	8.00	2.07	20.02	50.5°	28.9°	0.76	0.79
80°	8.20	1.42	19.66	54.6°	27.5°	0.77	0.82
90°	8.71	0.00	18.25	61.5°	29.6°	0.83	0.85
110°	9.76	3.34	15.60	77.6°	30.3°	0.98	0.93
120°	10.21	5.10	15.19	87.2°	22.1°	0.94	0.94
135°	9.89	6.99	13.71	105.4°	12.4°	1.00	1.00
150°	8.78	7.60	12.35	129.5°	6.5°	1.00	1.00
165°	8.05	7.77	11.66	154.8°	4.5°	1.00	1.00
180°	7.88	7.88	11.32	180.0°	3.5°	1.00	1.00
178.6° (r)	7.89	7.88	11.32	177.6°	3.7°	1.00	1.00