



2.) INPUT:

Identity - Number:

DD-Length: cm

Wind direction: Lee:

3.) RESULTS:

L:B A-B A-S L-gravity cm L-C1-C2 cm

F Wind daN=kg Wind forces based on maximal local wind speed.

Resulting forces "WITHOUT" use of diagonal stern lines and spring lines:

1 daN ~ 1 kg	Pull / Push		Beam forces		DD-distance		Space fact	
ideal angle:	1.347	daN	67%	13	daN	3%	515 cm	1,35
medium angle:	1.335	daN	67%	183	daN	43%	450 cm	1,19
parallel:	1.297	daN	65%	365	daN	87%	380 cm	1,01

Resulting forces "WITH" use of diagonal stern lines and spring lines:

1 daN ~ 1 kg	Pull / Push		Beam forces		theor. Cleat forces				
					longit.	lateral	[]		
ideal angle:	749	daN	37%	13	daN	3%	749	13	daN
medium angle:	749	daN	37%	111	daN	26%	749	183	daN
parallel:	749	daN	37%	179	daN	43%	749	365	daN

Resulting force per anchor screw "WITH" use of securing lines:

1 daN ~ 1 kg	Lateral shear		Pull or Push load		DD - horizontal angle:			
ideal angle:	217	daN	22%	167	daN	24%	max. angle °	17,74
medium angle:	434	daN	43%	257	daN	37%	min. angle °	10,20
parallel:	587	daN	59%	321	daN	46%	IST max. "A"	75

Info regarding tolerable water levels (relating tu turning point of arm) :

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+ °	45	water level	21	cm	Distance to pier:	14	cm	49,31	0	Coll.
- °	45	water level	-293	cm	Distance to pier:	14	cm	44,60	15	Saft.

Calculation lines lengths:

Calculation lines lengths:	Recommended	pay attention to the securing instructions					
Spring line:	970 cm	1.000	cm	Ø 14	mm	single	Yachtgröße:
Diagonal stern line:	655 cm	650	cm	Ø 14	mm	single	big

LIMITS:

	Pull / Push		Beam forces		max. wind speed					
ideal angle:	1.332	daN	67%	23	daN	6%	60	kn	111	kmh
medium angle:	1.119	daN	56%	144	daN	34%	55	kn	102	kmh
parallel:	925	daN	46%	211	daN	50%	50	kn	93	kmh

1.) Customer's demands & information:

Type and name of the yacht:	Motoryacht, Sunrise 45			IS
A	Desired distance pier ↔ stern	70	cm	75
B	Distance stern ↔ cleat	163	cm	✓
C	Distance stern ↔ midship cleat	700	cm	✓
D	Max. length (in total)	1.350	cm	✓
E	Distance cleat ↔ cleat	380	cm	✓
F	Max. width (in total)	400	cm	✓
G	Distance pier ↔ highest water level (high tide)	65	cm	✓
H	Distance pier ↔ lowest water level (low tide)	100	cm	✓
I	Distance cleat ↔ water level	145	cm	✓
J	Max. weight of the yacht	13.500	kg	✓
K	Max. local wind speed	45	kn	✓
L	Max. wave hight	0,30	m	✓
M	Max. current	1,00	kn	✓
N	max. surface area exposed to wind	20,00	m²	✓
O	Pier: Material	Concrete		✓
P	Obstacle on pier or yacht?	NO		✓
Q	Permission to use DD in marina?	YES		✓
Other valuable pieces of information & demands:				✓