

ISO 11812:2001 Small craft - Watertight cockpits and quick-draining cockpits

Manufacturer:	HMY YAYLACI VIP DİZAYN TAS KARAVAN SAN.TİC.LTD.ŞTİ
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CIN Model Year:	2023
Model Name:	YAT CAR

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blue cells are derived values

yellow cells require data input

- These worksheets checks the requirements for cockpit drainage solely with the quick method of calculation for cockpits as described in clause 7.8.4 of ISO 11812 for single level cockpits. Annex C or other methods may give other results for the required drainage area.
No multilevel cockpit calculation.

- Simplified calculation for drain pipes with a diameter between 25mm and 150mm; bigger ones cannot be calculated with this tool.

- Please attach other detailed information as appropriate, e.g. photos, sketches etc. for sill height, openings, companion way doors, practical tests etc.

- Please send questions, found errors, typos, mistakes, ect. directly to ralf.dewender@imci.org or to the headoffice with info@imci.org; every comment helps us to provides you with a better version.

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WORKSHEET No. 1 data entry

ISO 11812 en220801

HMY YAYLACI VIP DİZAYN TAS KARAVAN SAN.TİC.LTD.ŞTİ YAT CAR

Design Category intended:	D	Monohull / Multihull:	Monohull	Boat Type	Power
Item	Symbol	Unit	Value	Ref.	
Length of hull as in ISO 8666	L_H	m	4.60	3.2	
Beam of hull (max)	B_{max}	m	2.25	3.3	
Freeboard amidships	F_M	m	0.45	3.5	
Cockpit Volume	V_C	m ³	1.20	3.27	
Cockpit water retention height	h_C	m	0.55	3.15	
Cockpit bottom height	h_B	m	0.35	3.16	
Drain lenght		m			
Number of drains		. /.			
Actual Drain diameter		mm			
Drain with / without elbow			without		
Drain below / above waterline			above	7.8.4.3	
Area of additionall openings (transom door, freeing port, u.a.)		mm ²	70000		
Freeing port with / without flaps			without flaps		
Actual height of fixed sill	$h_{S,min}/2$	m	0.100	3.25	
Actual semifixed sill (mobile part) height	$h_{S,min}$	m	0.100	3.25	

Degree of watertightness of the closing appliances in the cockpit (if applicable)

Closing appliances on bottom and horizontal areas; actual degree of watertightness		n.a.	9.2.1
Closing appliances on cockpit sides up to $h_{S,min}$; actual degree of watertightness		n.a.	9.2.1
Closing appl. on cockpit sides betw. $h_{S,min}$ and $2 h_{S,min}^a$; actual degree of watertightness		n.a.	9.2.1
Closing appliances on cockpit sides above $2 h_{S,min}^a$; actual degree of watertightness		n.a.	9.2.1

Requirement results, general	Symbol	Unit	Value	Ref.
Minimum cockpit bottom height	$h_{B,min}$	m	0.050	3.17
Cockpit volume coefficient	k_C	. /.	0.2576490	3.28
Acceptable draining time	$t^* max$	min	3.493	7.2
Acceptable draining time, corr. (t_{max} with a max. of 5min)	$t max$	min	3.493	7.2
Reference time	$t ref$	min	2.911	7.8.4.2

Results, drain requirements

	Unit	Value	Ref.
Drain diameter, required Table 4 value	mm	50.0	7.8.4.4
Determination of coefficient C_1	. /.	0.98	annex C.4
Determination of coefficient C_2 or C_3	. /.		annex C.5
Drain diameter, corrected value with C_1, C_2 and C_3	mm	50.0	Table C.2
Cross section, required	mm ²	3927.0	Table C.2
Actual cross section	mm ²	70000.0	

Results, drainage area and cockpit bottom height

	Pass/Fail	
Cockpit bottom height	Pass	6.1 Table 2
Drainage cross section	Pass	Annex C

Results, sill heights

	req.	Pass/Fail	
Height of fixed sill	0.025	Pass	
Height of semifixed sill	0.05	Pass	

Results, degree of watertightness of closing appliances

	req.	Pass/Fail	Ref.
Closing appliances on bottom and horizontal areas	2	n.a.	9.2.1 Table 6
Closing appliances on cockpit sides up to $h_{S,min}$	2	n.a.	9.2.1 Table 6
Closing appl. on cockpit sides betw. $h_{S,min}$ and $2 h_{S,min}^a$	3	n.a.	9.2.1 Table 6
Closing appliances on cockpit sides above $2 h_{S,min}^a$	4	n.a.	9.2.1 Table 6

Signature :