

User Guide of Barometer Comparison Self-check Service for Vessels in Hong Kong

1. Access the following webpage for Barometer Comparison Self-check

https://eforms.weather.gov.hk/eforms_v2/barometercal.fm

Step 1: Input ship information. Please make sure your vessel is berthing at Hong Kong port.

Step 2: Input outboard air temperature, air pressure reading and height information of the barometer onboard vessel. Please make sure the input height of barometer at present is between the heights in ballast and at full load (i.e. In ballast \geq At present \geq At full load)

Step 3: Input validation code (refresh if necessary)

Step 4: Press “Submit” button

Barometer Comparison Self-check Service for vessels in Hong Kong

All fields are mandatory. If you have any enquiry, please contact the Port Meteorological Officer by phone during [office hours](#) (Phone No.: 2926 3113) or email (Email Address: hkopmo@hko.gov.hk)

Ship Information

Step 1

Ship Name	<input type="text" value="Tai Man"/>	Call Sign	<input type="text" value="TM7D"/>
Name of Shipmaster	<input type="text" value="Chan Tai Man"/>	E-mail	<input type="text" value="chantaiman@ship.com"/>
Current port of call	<input type="text" value="Hong Kong"/>		
Latitude	<input type="text" value="22.3"/>	° N (in Decimal Degrees) (e.g 22.2° to 22.5°)	
Longitude	<input type="text" value="114.2"/>	° E (in Decimal Degrees) (e.g 113.9° to 114.5°)	

The input position must be within Hong Kong waters

Barometer Information

Step 2

Outboard air temperature °C (in 0.1 °C unit)

Date and time of reading (in UTC)

Barometer Location	Barometer Height above mean sea level			Barometer Reading*
	In ballast	At present	At full load	
BRIDGE	<input type="text" value="44.8"/> m	<input type="text" value="40.3"/> m	<input type="text" value="39.4"/> m	<input type="text" value="1019.8"/> hPa
MASTER CABIN	<input type="text" value="37.5"/> m	<input type="text" value="36.8"/> m	<input type="text" value="34.2"/> m	<input type="text" value="1020.6"/> hPa
CHIEF OFFICER	<input type="text" value="38.0"/> m	<input type="text" value="36.8"/> m	<input type="text" value="32.8"/> m	<input type="text" value="1020.2"/> hPa
SHIP OFFICE	<input type="text" value="15.3"/> m	<input type="text" value="13.2"/> m	<input type="text" value="12.1"/> m	<input type="text" value="1022.0"/> hPa
ENGINE ROOM	<input type="text" value="11.5"/> m	<input type="text" value="10.0"/> m	<input type="text" value="8.7"/> m	<input type="text" value="1015.0"/> hPa

Outboard air temperature Pressure reading direct readout from the barometer onboard vessel

Please enter the code shown for validation

Input validation code

Press “Submit” button

Submit

2. Preview the input information and press “Confirm” button to proceed

Please check the following information

Ship Information	
Ship Name	Tai Man
Call Sign	TM7D
Name of Shipmaster	Chan Tai Man
E-mail	chantaiman@ship.com
Latitude	22.3 N
Longitude	114.2 E
Current port of call	Hong Kong
Barometer Information	
Outboard air temperature	28 °C
Date of reading	04-06-2022
Time of reading	00 UTC
Barometer Location	
Barometer Location	BRIDGE
Height in ballast	44.8 m
Height at present	40.3 m
Height at full load	39.4 m
Barometer Reading	1019.8 hPa
Barometer Location	
Barometer Location	MASTER CABIN
Height in ballast	37.5 m
Height at present	36.8 m
Height at full load	34.2 m
Barometer Reading	1020.6 hPa
Barometer Location	
Barometer Location	CHIEF OFFICER
Height in ballast	38.0 m
Height at present	36.8 m
Height at full load	32.8 m
Barometer Reading	1020.2 hPa
Barometer Location	
Barometer Location	SHIP OFFICE
Height in ballast	15.3 m
Height at present	13.2 m
Height at full load	12.1 m
Barometer Reading	1022.0 hPa
Barometer Location	
Barometer Location	ENGINE ROOM
Height in ballast	11.5 m
Height at present	10.0 m
Height at full load	8.7 m
Barometer Reading	1015.0 hPa

Press “Confirm” button to process

3. Check calibration results

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Calibration Result(s)

Location of Barometer	Date/Time (UTC)	Reference MSLP at HKO (hPa) (a)	Barometer Reading* (hPa) (b)	Outboard Temperature (°C)	Height/Temperature Correction (hPa) (c)			Index Correction (hPa) (d)	Total correction to obtain MSLP(hPa) (e)		
					In ballast	At present	At full load		In ballast	At present	At full load
BRIDGE	Aug 04, 00 UTC	1004.1	1019.8	28	+5.1	+4.6	+4.5	-20.3	-15.2	-15.7	-15.8
MASTER CABIN	Aug 04, 00 UTC	1004.1	1020.6	28	+4.3	+4.2	+3.9	-20.7	-16.4	-16.5	-16.8
CHIEF OFFICER	Aug 04, 00 UTC	1004.1	1020.2	28	+4.3	+4.2	+3.7	-20.3	-16.0	-16.1	-16.6
SHIP OFFICE	Aug 04, 00 UTC	1004.1	1022	28	+1.7	+1.5	+1.4	-19.4	-17.7	-17.9	-18.0
ENGINE ROOM	Aug 04, 00 UTC	1004.1	1015	28	+1.3	+1.1	+1.0	-12.0	-10.7	-10.9	-11.0

*Without correction to mean sea level pressure or for instrumental error

Note: (a)-(b) + (c) = (d), (c) + (d) = (e)

MSLP= Mean Sea Level Pressure

Correction for instrumental error

Add this value to the barometer to obtain mean sea level pressure.

4. Calibrate the barometer onboard ship

Based on the calibration results obtained in step (3), apply the index correction to correct for instrumental error of the barometer and obtain pressure reading onboard the ship **OR** add the total correction to the pressure reading direct readout from the onboard barometer to obtain mean sea level pressure.