

MARINA CIRCULAR NO. 04
Series of 2007

TO : ALL PHILIPPINE SHIP OWNERS / OPERATORS / CHARTERERS / MANAGERS / OF PHILIPPINE REGISTERED-SHIPS; ALL CONCERNED REGISTERED NAVAL ARCHITECT & MARINE ENGINEERS; AND ALL OTHERS CONCERNED

SUBJECT : RULES AND REGULATIONS ON THE ADMEASUREMENT/RE-ADMEASUREMENT OF PHILIPPINE-REGISTERED DOMESTIC SHIPS

Pursuant to the provisions of Presidential Decree No. 474, Executive Order No. 125/125-A and Republic Act no. 9295 and its Implementing Rules and Regulations, the following Rules and Regulations for the Admeasurement/Re-admeasurement of Philippine-registered ships are hereby adopted and prescribed:

I. OBJECTIVE:

To provide rules, and regulations and guidelines in ascertaining the volumetric capacity of measurable spaces of Philippine-registered ships, specifically their Gross and Net Tonnages.

II. COVERAGE:

This Circular shall cover all Philippine-registered ships, engaged in both domestic and international operations. However, the herein rules, regulations and guidelines shall only apply prospectively to incoming ships to be registered under the Philippine flag, acquired through importation, lease, lease-purchase or bareboat charter, whether second-hand or new building. This Circular shall not cover existing ships already registered under the Philippine flag which have been issued Tonnage Measurement Certificate by the Maritime Industry Authority (MARINA) or the Philippine Coast Guard (PCG), or its Recognized Organizations (ROS) in the case of Philippine-registered international ships, unless the owner/operator of such ships decide to have them re-admeasured under the herein rules of this Circular. In cases however, where such existing ships are altered, converted and/or modified, they shall be admeasured/re-admeasured on the basis of this Circular.

III. EXCEPTION:

This Circular shall not cover ships of war and troop ships. The following ships shall be covered by this Circular in the event they are to be registered under Philippine Flag:

1. Government ships not engaged in commercial trade.
2. Sailing ships; and
3. Pleasure crafts not engaged in commercial activities.
4. Ships 3 GT and below

IV. DEFINITION OF TERMS:

Unless otherwise defined herein, the terms used and defined in ITC 1969, as amended, shall apply.

1. **Administration** – means the Maritime Industry Authority (MARINA).
2. **Alteration/Modification** – shall include, but not limited to, re-engining of propulsion machinery; jumboizing of ship's hull in terms of length, breadth and depth; construction of additional deck; transfer, movement or addition of superstructure; changes of subdivision(s) affecting watertight integrity.
3. **Conversion** – refers to a kind of work done on an existing ship resulting in its modification into something totally different from the original ship (i.e., rig type).
4. **Gross Tonnage** – means the measure of the overall size of a ship determined in accordance with the provisions of this Circular.
5. **Net Tonnage** – means the measure of the useful capacity of a ship determined in accordance with the provisions of this Circular.

The definitions hereunder shall apply only to the following ships; (a) enclosed deck with outriggers; (b) open deck with outriggers; (c) open deck without outriggers:

6. **Tonnage Length** – is the length measured on the under side of the tonnage deck, from a point where the line of the inside face of the frames meet on the centerline of the side at the stern to point where the same line would meet the centerline of the ship at the stern.

7. **Tonnage Breadth** - is the horizontal breadth measured at the uppermost depth at midship and the measurement shall be taken to the inboard face of the frames.
8. **Tonnage Depth** - is the dimension taken at the middle of the tonnage length from a point above the deck edge at side to the top of the floor frames or the inner bottom plating.

V. GENERAL PROVISIONS:

1. All Philippine-registered ships covered by this Circular whether engaged in domestic or international operations, shall be admeasured and must always have in possession on board a Tonnage Measurement Certificate issued by the Administration.
2. All Philippine-registered ships shall be admeasured in accordance with the applicable provisions of the International Tonnage Convention (ITC) of 1969, as amended, as outlined in Sec. VI. a to e. of this Circular, except ships with enclosed deck and with outriggers, open deck and with outriggers, and open deck without outriggers. For Philippine-registered international ships, they can be admeasured and certified by a MARINA-Recognized Organization, but the International Tonnage Measurement Certificate shall adopt such calculations and be issued by the MARINA.
3. The ITC 1969, as amended, is hereby adopted as an integral part of this Circular.
4. For ships with enclosed deck and with outriggers, open deck and with outriggers, and open deck and without outriggers, their admeasurement shall be based on a modified formula provided in Sec. VI. f. and g. of this Circular.
5. Ships acquired from abroad through importation, lease or charter, whether second-hand or newbuilding, which have already been admeasured in accordance with the ITC 1969, as amended, shall be re-issued a Tonnage Measurement Certificate by the MARINA, subject to the submission of a duly-notarized affidavit from the applicant company/operator/manager, that the ship was not altered/modified/converted since its previous admeasurement.
6. Locally constructed ships and ships acquired from abroad not admeasured in accordance with the ITC 1969, as amended, shall be subjected to an admeasurement to be undertaken by a duly-licensed Naval Architect and Marine Engineer (NAMARE), or other qualified/trained technical personnel, from the MARINA in the case of

domestic ships, and/or a MARINA-Recognized Organizations (ROs) in the case of the international ships. The corresponding Tonnage Measurement Certificate shall be issued by the MARINA.

7. In the case of ships already issued with a Tonnage Measurement Certificate, where alteration, modifications or conversion are made after the effectivity of this Circular affecting its internal volume, such ships shall be subjected to re-admeasurement by a MARINA NAMARE or other qualified/trained technical personnel for domestic ships, and/or MARINA-Recognized Organizations (ROS) for international ships.
8. For domestic ships homeported in the regions, the shipowner/operator/manager shall apply and have their ships undergo tonnage measurement and subsequent issuance of Tonnage Measurement Certificate at the concerned Maritime Regional Office (MRO), In cases where there is no licensed NAMARE in the concerned MRO, they may apply at the next nearest MRO where there is such qualified personnel available.
9. The following plans shall be submitted to the MARINA to be used in the computation/ calculation of tonnage measurement:
 - 9.1. General Arrangement Plan
 - 9.2. Construction Plan
 - 9.3. Midship Plan
 - 9.4. Lines Drawing
 - 9.5. Capacity Plan
10. Ships covered by this Circular subjected to the herein adopted/prescribed rules and regulations on Admeasurement/Re-admeasurement, inclusive of the supporting plans, calculations, etc., shall be issued the Tonnage Measurement Certificate/ Tonnage Re-admeasurement Certificate by the MARINA.
11. Upon completion of the needed survey/inspection, calculations, etc., and submission of all requirements, the Tonnage Measurement Certificate shall be issued by the MARINA within five (5) working days therefrom.
12. No domestic ship shall be registered under the Philippine flag and issued safety and other related certificates until a Tonnage Measurement Certificate has been issued to it by the MARINA.

VI. DETERMINATION OF GROSS AND NET TONNAGES OF SHIPS:

1. Measurement and Calculation

- 1.1. All measurement used in the calculation of volume shall be taken to the nearest thousandth of a meter.
- 1.2. The volume shall be calculated by generally acceptable methods for the space concerned and with an accuracy acceptable to the Administration.
- 1.3. The calculation shall be sufficiently detailed to permit easy checking.

2. Calculation of Volumes

All volumes included in the calculation of gross and net tonnages shall be measured, irrespective of the fitting of insulation or the like, to the inner side of the shell or structural boundary plating in ships constructed of metal, and to outer surfaces in ships constructed of any other material.

3. Gross Tonnage

The Gross Tonnage (GT) of a ship shall be determined by the following formula:

$$GT = K_1 V$$

Where:

V = Total Volume of all enclosed spaces of the ship in cubic meters,

$$K_1 = 0.2 + 0.02 \log_{10} V$$

N.B. Please refer to Annex 1 of this Circular for the table of coefficients K_1 and K_2

4. Net Tonnage

The Net Tonnage (NT) of a ship shall be determined by the following formula:

$$NT = K_2 V_c (4d/3D)^2 + K_3 (N_1 + N_2/10)$$

in which formula:

- 4.1. the factor $(4d/3D)^2$ shall not to be taken as greater than unity;
- 4.2. the term $K_2 V_c (4d/3D)^2$ shall not to be taken as less than 0.25 GT; and

4.3. NT shall not to be taken as less than 0.30 GT, and in which:

V_c = total volume of cargo spaces in cubic meters

$$K_2 = \frac{0.2 + 0.02 \log_{10} V_c}{GT + 10,000}$$

$$K_3 = \frac{1.25}{10,000},$$

D = moulded depth amidships in meters

d = moulded draught amidships in meters

N_1 = number of passengers in cabin with not more

than 8 berths,

N_2 = number of other passengers,

$N_1 + N_2$ = total number of passengers the ship is permitted to carry as indicated in the ship's passenger certificate; when $N_1 + N_2$ is less than 13, N_1 and N_2 shall be taken as zero,

G_t = gross tonnage of the ship

5. The moulded draught (d) referred to above shall be one of the following draughts:

5.1. for ships to which the International Convention on Load Lines in force applies, the draught corresponding to the Summer Load Line (other than timber load lines) assigned in accordance with that Convention;

5.2. for passengers ships, the draught corresponding to the deepest subdivision load line assigned in accordance with the International Convention for the Safety of Life at Sea in force, or other international agreement, where applicable

5.3. for ships to which the International Convention on Load Lines does not apply but which have been assigned a load line in compliance with national requirements, the draught corresponding to the summer load line so assigned;

5.4. for the ships to which no load line has been assigned but the draught of which is restricted in compliance with national requirements, the maximum permitted draught;

5.5. for other ships, 75 percent of the moulded depth amidship.

6. By Rake-Rake Method:

To be used for wooden/steel/FRP/ etc.-hulled motor/ non-motorized bancas with/without outriggers, and/or open deck designed with rake forward and rake aft, with dugged-out bottom.

$$\text{Tonnage Length (TL)} = L - \frac{[\text{Rake}_1 \text{ fwd} + \text{Rake}_2 \text{ aft}]}{2}$$

$$\text{Tonnage Breadth (TB)} = \frac{[B_1 + B_2]}{2}$$

$$\text{Gross Tonnage (GT)} = \frac{\text{TL} \times \text{TB} \times \text{TD}}{2.83}$$

$$\text{Net Tonnage (NT)} = \text{GT} - \text{PP}$$

Where:

TL	=	Tonnage Length
TB	=	Tonnage Breadth
TD	=	Tonnage Depth
PP	=	Propelling Power (32% of GT)

7. By Coefficient Method:

To be used for wooden/steel/FRP/etc.-hulled motor/non-motorized bancas with/without outriggers and/or open deck where the design is considered novel in the sense that it is not an ordinary design with dugged-out bottom.

$$\text{Gross Tonnage (GT)} = \frac{\text{TL} \times \text{TB} \times \text{TD} \times 0.70}{2.83}$$

$$\text{PP} = \text{Propelling Power (32\% of GT)}$$

$$\text{Net Tonnage (NT)} = \text{GT} - \text{PP}$$

Where:

TL	=	Tonnage Length
TB	=	Tonnage Breadth
TD	=	Tonnage Depth
0.70	=	Block Coefficient

VII. DOCUMENTARY REQUIREMENTS:

1. Letter- application for admeasurement/re-admeasurement.
2. Duly notarized Builder's Certificate (for new building).
3. Shipbuilding contract, Memorandum of Agreement or other proofs of Ownerships i. e. duly notarized Affidavit of Ownership (for new building).
4. Previous Certificate of Tonnage Measurement, (for existing registered ships).
5. Duly notarized affidavit form the applicant/company/operator/manager, that the ship was not altered/modified/converted since its previous admeasurement, where applicable.

VIII. FEES AND CHARGES:

A. Domestic Tonnage Certificate

3.00 GT	-	and below	P550.00
3.01 GT	-	14.99 GT	700.00
15.00 GT	-	34.99 GT	950.00
35 GT	-	99.99 GT	1,750.00
100 GT	-	249.99 GT	6,100.00
250 GT	-	499.99 GT	8,200.00
500 GT	-	and above	8,200.00 plus P6.00/GT in excess of 500 GT

Re- issuance of Certificate – P550.00

B. International Tonnage Measurement Certificate (ITC)

Below 50 GT			P 600.00
50 GT	-	99.99 GT	1,200.00
100 GT	-	249.99 GT	2,350.00
250 GT	-	499.99 GT	3,500.00
500 GT	-	999.99 GT	4,700.00
1,000 GT	-	1,499.99 GT	6,000.00
1,500 GT	-	and above	6,000.00 plus P8.00/GT in excess of 1,500 GT

Re- issuance of certificate – P5,000.00

- C. In cases where the service is provided by the MARINA Central Office or Maritime Regional Office outside their working station, an additional fee shall be charged to cover the MARINA NAMARE/Surveyor.

IX. FINES AND PENALTIES:

1. Spurious, and tampered Certificate

3.0 T and below			P550.00
3.01 GT	-	14.99 GT	700.00
15.00 GT	-	34.99 GT	950.00
35 GT	-	99.99 GT	1,750.00
100 GT	-	249.99 GT	6,100.00
250 GT	-	499.99 GT	8,200.00
500 GT	-	and above	8,200.00 plus P6.00/GT in excess of 500 GT

2. Non- possession of a valid Certificate

- a. Domestic Ships – P5,000.00
- b. International Ships – P50,000.00

X. REPEALING CLAUSE:

Any provisions of existing laws and other MARINA rules and regulations which are inconsistent herewith is hereby repealed and modified accordingly.

XI. EFFECTIVITY:

This Memorandum Circular shall take effect after fifteen (15) days after its publication once in a newspaper of general circulation in the Philippines.

BY THE AUTHORITY OF THE BOARD:

(Sgd.) VICENTE T. SUAZO, JR.
Administrator

SECRETARY'S CERTIFICATE

This is to certify that MARINA Circular No. 2007-04 has been approved by the MARINA Board in its 177th Regular Board Meeting held on 29 August 2007.

(Sgd.) ATTY. JABETH SENA JEPATH A. DACANAY
Acting Corporate Board Secretary

Published on 02 September 2007 at **Manila Times** Newspaper.
Copy filed with the UP Law Center on 13 September 2007.

COEFFICIENT K1 AND K2

V or Vc=Volume in cubic meters

V or Vc	K1 or K2	V or Vc	K1 or K2	V or Vc	K1 or K2	V or Vc	K1 or K2
10	0.2200	45000	0.2931	330000	0.3104	670000	0.3165
20	0.2260	50000	0.2940	340000	0.3106	680000	0.3166
30	0.2295	55000	0.2948	350000	0.3109	690000	0.3168
40	0.2320	60000	0.2956	360000	0.3111	700000	0.3169
50	0.2340	65000	0.2963	370000	0.3114	710000	0.3170
60	0.2356	70000	0.2969	380000	0.3116	720000	0.3171
70	0.2369	75000	0.2975	390000	0.3118	730000	0.3173
80	0.2381	80000	0.2981	400000	0.3120	740000	0.3174
90	0.2391	85000	0.2986	410000	0.3123	750000	0.3175
100	0.2400	90000	0.2991	420000	0.3125	760000	0.3176
200	0.2460	95000	0.2996	430000	0.3127	770000	0.3177
300	0.2495	100000	0.3000	440000	0.3129	780000	0.3178
400	0.2520	110000	0.3008	450000	0.3131	790000	0.3180
500	0.2540	120000	0.3016	460000	0.3133	800000	0.3181
600	0.2556	130000	0.3023	470000	0.3134	810000	0.3182
700	0.2569	140000	0.3029	480000	0.3136	820000	0.3183
800	0.2581	150000	0.3035	490000	0.3138	830000	0.3184
900	0.2591	160000	0.3041	500000	0.3140	840000	0.3185
1000	0.2600	170000	0.3046	510000	0.3142	850000	0.3186
2000	0.2660	180000	0.3051	520000	0.3143	860000	0.3187
3000	0.2695	190000	0.3056	530000	0.3145	870000	0.3188
4000	0.2720	200000	0.3060	540000	0.3146	880000	0.3189
5000	0.2740	210000	0.3064	550000	0.3148	890000	0.3190
6000	0.2756	220000	0.3068	560000	0.3150	900000	0.3191
7000	0.2769	230000	0.3072	570000	0.3151	910000	0.3192
8000	0.2781	240000	0.3076	580000	0.3153	920000	0.3193
9000	0.2791	250000	0.3080	590000	0.3154	930000	0.3194
10000	0.2800	260000	0.3083	600000	0.3156	940000	0.3195
15000	0.2835	270000	0.3086	610000	0.3157	950000	0.3196
20000	0.2860	280000	0.3089	620000	0.3158	960000	0.3196
25000	0.2880	290000	0.3092	630000	0.3160	970000	0.3197
30000	0.2895	300000	0.3095	640000	0.3161	980000	0.3198
35000	0.2909	310000	0.3098	650000	0.3163	990000	0.3199
40000	0.2920	320000	0.3101	660000	0.3164	1000000	0.3200