

Subject

Information of "VESSEL REQUIREMENTS FOR NEW PANAMAX" from Panama Canal Authority

# **ClassNK**

## ***Technical Information***

No. TEC-0964

Date 3 September 2013

To whom it may concern

The Panama Canal Authority (ACP) has informed of OP'S ADVISORY TO SHIPPING No.A-20-2013, "VESSEL REQUIREMENTS FOR NEW PANAMAX" as attached. As necessary, please refer to the relating text of the advisory and others which are available on the Panama Canal Authority (ACP) Internet Homepage. (<http://www.pancanal.com>)

A summary of this OP'S ADVISORY TO SHIPPING No.A-20-2013, "VESSEL REQUIREMENTS FOR NEW PANAMAX" is presented hereunder for your information.

1. Definition

- (1) Panamax Plus: All Panamax vessels authorized for TFW drafts greater than 12.04 meters and approved for transit of the new locks.
- (2) New Panamax: All vessels with dimensions greater than Panamax or Panamax Plus that comply with the size and draft limitations of the new locks; namely, 366.00 meters in length by 49.00 meters in beam by 15.20 meters TFW draft.

2. Maximum dimensions acceptable for regular transit the new locks are as follows;

- (1) The maximum length overall including bulbous bow for commercial or non-commercial vessels acceptable for regular transit is 366.00 meters.
- (2) The maximum beam for commercial or non-commercial vessels and the integrated tug-barge combination acceptable for regular transit is 49.00 meters, measured at the outer surface of the shell plate.
- (3) The maximum permissible draft for Canal transits has been set at 15.20 meters Tropical Fresh Water (TFW) at a Gatun Lake level of 25.91meters or higher. Gatun Lake density is 0.9954tons/m<sup>3</sup> at 29.4 °C.

3. Requirements for Construction, Number, and Location of chocks and bitts by ACP are partly revised, because chocks and bitts will be used by ACP tugs assisting vessels through the new locks. Please refer to attachment for details.

(To be continued)

NOTES:

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For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)

Hull Department, Administration Center, Head Office

Address: 4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan

Tel.: +81-3-5226-2018

Fax: +81-3-5226-2019

E-mail: [hld@classnk.or.jp](mailto:hld@classnk.or.jp)

Attachment:

1. OP'S ADVISORY TO SHIPPING No.A-20-2013 VESSEL REQUIREMENTS FOR NEW PANAMAX\*

\*Erratum:

In tenth sentence in Paragraph 1 of "Construction, Number, and Location of Chocks and Bitts", the notation of "Section 8.a (5)" should read "Section 8.a (4)".



## AUTORIDAD DEL CANAL DE PANAMÁ EXECUTIVE VICE PRESIDENCY FOR OPERATIONS

### ADVISORY TO SHIPPING No. A-20-2013

August 2, 2013

**TO :** All Shipping Agents, Owners, and Operators

**SUBJECT:** VESSEL REQUIREMENTS FOR NEW PANAMAX

The Panama Canal Authority (ACP) reminds all customers that vessels arriving at Canal waters, whether for docking or transiting the Panama Canal, must comply with vessel requirements, as stated in the Maritime Regulations for the Operation of the Panama Canal and OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements."

The purpose of this Advisory is to inform the shipping community of the definitions and requirements applicable to all vessels intending to transit the Panama Canal's new locks.

#### Definitions:

- **Tropical Fresh Water (TFW):** Tropical Fresh Water of Gatun Lake, density 0.9954 tons/m<sup>3</sup> at 29.4 °C. (Note: Transition to fresh water frequently alters trim of large vessels by the head).
- **Panamax:** All Supers that comply with the size and draft limitations of the actual locks; namely, 294.13 meters in length by 32.31 meters in beam by 12.04 meters TFW draft.
- **Panamax Plus:** All Panamax vessels authorized for TFW drafts greater than 12.04 meters and approved for transit of the new locks.
- **New Panamax:** All vessels with dimensions greater than Panamax or Panamax Plus that comply with the size and draft limitations of the new locks; namely, 366 meters in length by 49 meters in beam by 15.2 meters TFW draft.
- **Safe Working Load (SWL):** The SWL should not exceed 80 percent of the design load.

#### Maximum Length:

- The maximum length overall including bulbous bow for commercial or non-commercial vessels acceptable for regular transit is 366 meters. Vessels transiting the Canal for the first time, whether newly-constructed or newly-modified, are subject to inspection and prior review and approval of vessel plans. Vessels not receiving advance approval and/or not in compliance with Canal requirements may experience delays or denial of transit.
- The maximum length for integrated tug-barge (ITB) combination acceptable for regular transit is 366 meters overall, including the tug. A tug-barge combination must transit together as one unit with the tug supplying propelling power.

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- The maximum aggregate overall length for non-self-propelled vessels acceptable for transit is 305 meters, including accompanying tugs. Accompanying tugs must lock through with the non-self-propelled vessel. One time only transits that exceed these limitations may be permitted on a case-by-case basis with prior approval of the Executive Manager for Transit Operations, and subject to requirements listed in Section 2.k (9), of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements."

**Maximum Beam:**

- The maximum beam for commercial or non-commercial vessels and the integrated tug-barge combination acceptable for regular transit is 49 meters, measured at the outer surface of the shell plate, including all protruding structures below the top of the lock walls.
- The maximum beam for non-self-propelled vessels, other than integrated tug-barge combinations, acceptable for transit is 36.5 meters. One time transit of wider vessels may be permitted with prior approval of the Executive Manager for Transit Operations, and subject to requirements listed in Section 2.k (9), of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements."
- Vessels that carry cargo within 2.5 centimeters or less of the extreme beam must have approved provisions, such as rubbing bands to protect the cargo, should the vessel rest alongside the wall while in the chamber. The maximum beam of 49 meters must not be exceeded by the cargo protection method.

**Protrusions:**

- Anything that extends beyond a vessel's hull, except for the main anchors, shall be considered a protrusion and subject to all applicable regulations and limitations.
- The ACP is not responsible for damages to protrusions, whether permanent or temporary.
- Vessels with protrusions may be permitted to transit provided that such protrusions will not interfere with the safe transit of the vessel or present a hazard to Canal structures and appurtenances, as determined by the Executive Manager for Transit Operations. Before transit is permitted, the master of the vessel will be required to complete a form "Undertaking to Release and Indemnify" to exonerate and indemnify the ACP from liability in case of an accident or damages sustained to or as a result of these protrusions.
- Vessels with permanent protrusions must, prior to proceeding to the Canal, furnish detailed information regarding the protrusion(s), including plans, and request authorization for transit. Advance information will minimize the possibility of delays or denial of transit. For detailed information, contact the Executive Manager for Transit Operations.

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- Vessels with protrusions extending beyond the maximum length and beam limitations specified in the previous sections of this advisory may, on a case-by-case basis, be permitted to transit, provided that approval is obtained in advance from the Executive Manager for Transit Operations and that those protrusions do not present a hazard or interfere with lock structures, equipment and/or operation, and the master completes a form releasing the ACP from liability. See Section 2.h, of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements."
- Protrusions, cargo or extensions beyond the ship's side located 16.85 meters or less above the waterline are not acceptable; however, extensions up to 4 meters beyond the hull and higher than 16.85 meters from the waterline will be reviewed on a case-by-case basis to verify the minimum clearance of 1000 mm from all equipment above the lock walls (such as valve stems, bitts, etc.). Protrusions of up to 5 meters located higher than 22.87 meters or up to 6.5 meters and located higher than 25.44 meters over the waterline, will also be reviewed on a case-by-case basis to verify the minimum clearance is provided from all equipment (such as light posts, valve stems, etc.).

**Draft:**

- The maximum permissible draft for Canal transits has been set at 15.2 meters Tropical Fresh Water (TFW) at a Gatun Lake level of 25.91 meters or higher. Gatun Lake density is 0.9954 tons/m<sup>3</sup> at 29.4 °C. This provides a safe navigational margin of at least 1.52 meters over critical elevations in the navigational channels and a clearance over the lock sills of 3.05 meters.

**Construction, Number, and Location of Chocks and Bitts:**

- The mooring requirements, as stated in Section 8.a of OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements," will remain unchanged for Panamax vessels. For the Panamax Plus and New Panamax vessels, the mooring requirements will be as stated in Section 8.a except as required herein. Namely, the chocks and bitts will be used by ACP tugs assisting vessels through the new locks, as well as for mooring vessels inside the locks. All chocks for the Panamax Plus and New Panamax vessels shall be double chocks and shall have a throat opening area of not less than 900 square centimeters (preferred dimensions are 355 millimeters x 255 millimeters) and shall be capable of withstanding a SWL of 90 tons (883kN) in towing operations and a minimum SWL of 64 tons (628 kN) in mooring operations from any direction, in accordance with Section 8.a (5), of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements."

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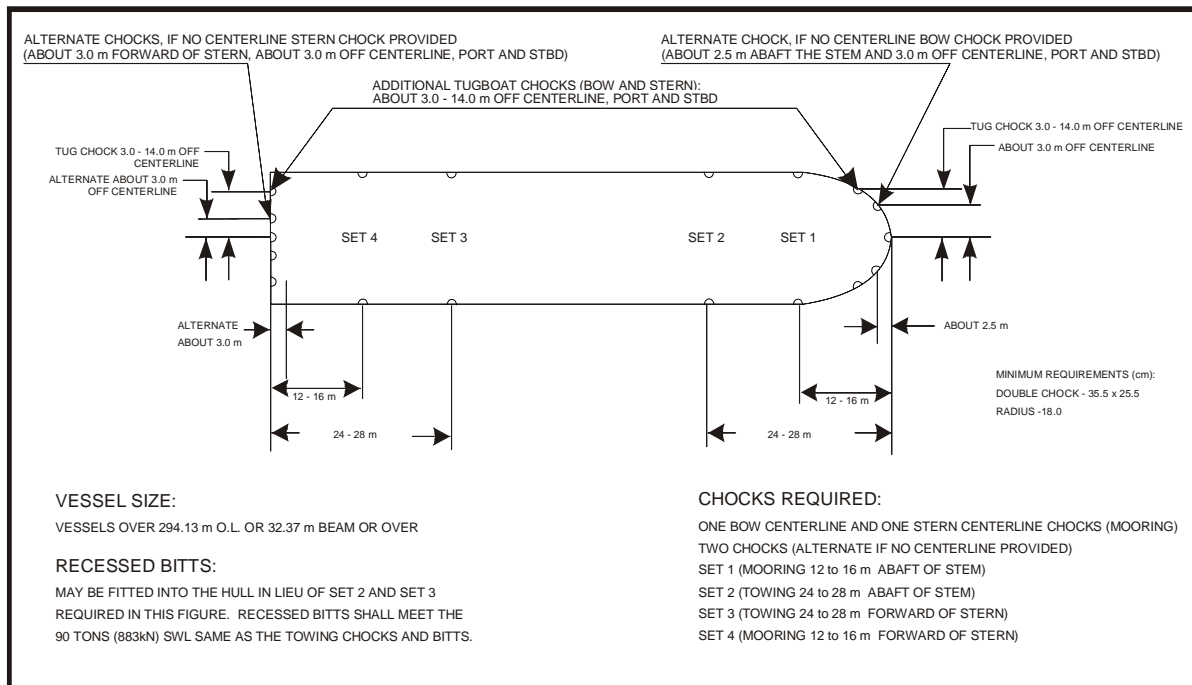
- New Panamax and Panamax Plus vessels shall have additional tugboat chocks fitted in the bow and stern about 3.0 - 14.0 m off centerline, port and starboard sides. Each of these double chocks shall be served by one pair of accompanying heavy bitts with a preferred diameter of 500 millimeters, and each bitt shall be capable of withstanding the stress caused by a SWL of 90 tons (883kN). All other towing chock locations, namely SET2 and SET3, will also require one pair of heavy bitts with each bitt capable of withstanding a SWL of 90 tons (883kN). The rest of the chock locations for use in mooring operations shall be accompanied by one pair of heavy bitts meeting the minimum SWL of 64 tons (628 kN) in accordance with Section 8.a (7), of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements." See Figure 6A.
- Vessels with large flared bows, pronounced counters or unusually high freeboards, such as LNG carriers, container vessels, cruise vessels or vehicle carriers, will be required to provide closed chocks located further aft than those required in Section 8.a (12), of the OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements", for correct positioning of assisting tugs. These vessels may be required to fit recessed tug bollards into the hull in lieu of the chocks detailed in this paragraph so that tugs can work without coming in contact with the flare or counter and without requiring extra-long lines and/or inefficient leads. See Figure 6A. Recessed bitts shall meet the 90 tons (883kN) SWL required above.
- The use of existing roller chocks on vessels will be evaluated for approval during transit, upon request, on a case-by-case basis, provided they are located not less than 16.24 meters above the waterline at the vessel's maximum Panama Canal draft, are in good condition, meet all requirements for closed chocks, as specified above, and are fitted so that the transition from the rollers to the body of the chock prevents damage to the mooring lines. The equivalency of the proposed closed roller chocks shall be submitted for review and acceptance by the ACP.

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**FIGURE 6A**

Vessels not in compliance with OP's Notice to Shipping No. N-1-2013 (Rev 1), "Vessel Requirements," or the above requirements, shall be evaluated in order to determine under what conditions, if any, they may be allowed to transit or dock. Vessels that require additional resources due to non-compliance or other deficiencies will be assessed the corresponding charges.

These requirements are necessary in order to guarantee the readiness of vessels to transit through the new locks and the expanded Canal in a safe and efficient manner. The Panama Canal is committed to promoting a beneficial relationship with our customers and to continue offering the best possible service.

**ORIGINAL SIGNED**

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Esteban G. Sáenz  
Executive Vice President for Operations