



# Technical News

A brief technical update on the new Panama Canal locks regulations

## The Panama Canal expansion program...

... is now at about 90% of the final construction, while the Panama Canal Authority (ACP) expects the commercial opening early in 2016. With the new locks is intended to double the capacity of the Panama Canal by creating a new lane of traffic and allowing more ships to transit.

### Definitions

#### - Neo Panamax ship

**Neo Panamax** is a ship with dimensions greater than Panamax or Panamax Plus that comply with the size and draft limitations of the new locks, which are:

- max length 366.0m.
- max breadth 49.0m.
- max draft (fresh water) 15.2m.

#### - Panamax ship

**Panamax** ships are all Supers that comply with the size and draft limitations of the actual locks; namely, length 294.13m by 32.31m in breadth by 12.04 fresh water draft.

#### - Panamax Plus ship

**Panamax Plus** are all Panamax ships authorised for fresh water draft greater than 12.04m up to 15.2m and approved for transit in the new locks.



## New Panama Canal locks

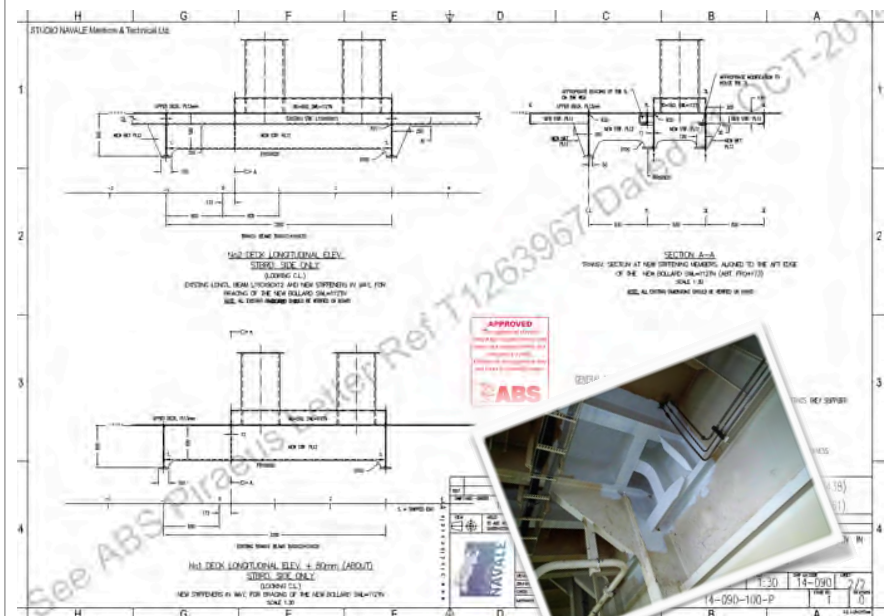
Effective immediately, the Panama Canal “**OP Notice to Shipping No N-1-2015**” allows the **Neo Panamax** ships to use the facilities of the new Panama Canal locks, with breadth up to 49.0 meters.

The notice requires, among others and apart from dimensional limitations, specific mooring equipment and minimum visibility capability. Non-compliance with the Panama Canal Rules and Regulations applied with the notice may address ships to delays or denial of transit.

The requirements are applied to any ships under the new characteristic nickname “**Neo Panamax**”, however in this newspaper we have concentrated to Aframax Tankers (in the vicinity of breadth 42.0m and 105,000-110,000DWT).

### Requirements for strong chocks and bitts:

The new Panama Canal notice requires for the Neo Panamax ships to be fitted with specific towing chocks and bitts of SWL 90TN and mooring chocks and bitts of SWL 64TN.



Also, additional towing chocks and associated strong bitts are required.

Existing chocks and bitts can be utilised, in case of their minimum strength capacity is the required, however they must be located at specific, predetermined locations in way of the Neo Panamax ships decks.

### *Requirements for winches and ropes:*

All ships wishing to transit the new locks will be required to have mooring winches in operation and fitted with manila or synthetic mooring lines. Wire ropes and ropes composed of both wire and finer or filaments are not acceptable. The normal practice in case of mooring in the canal chambers will

be the use of mooring ropes directly from the winch drums.



### *Requirements for visibility:*

The ships transiting the new locks must comply with requirements of minimum visibility from navigation bridge, both in ballast and laden conditions. The blind distance and visibility length should be calculated.

### *Requirements for pilot platforms and shelters:*

It is strongly highlighted in the new Panama Canal notice that ships with length of 274.32m overall or more and ships with a length of 213.36m overall or more and a beam 30.48m or more NOT in compliance with the Panama Canal visibility requirements, must be equipped with pilot platforms and shelters.

## Studio Navale...

... has been established in 1987 in Piraeus, by the Naval Architect and Marine Engineer Alex Kouros with the scope of providing the ultimate available level of services, to shipping and industrial Clients.

Studio Navale is now operating from the brand new, ergonomic and well designed premises in the Industrial Park of Schisto, the VIPAS or, in other words, the heart of the shipping and industrial technical businesses of Greece, in the characteristic building of **Turbomed**, just at the entrance of the Park.

Studio Navale negotiates with all kind of ship design, ship construction and ship repairs from the very basics to a turn-key project and assists with tender, production design, operational support scheduling, quality and profitability as well as day-to-day ship management operations.



## Technical support

At Studio Navale we have an extensive experience in dealing with the requirements of Panama Canal new locks. Several works have been carried out **already** and, in the past we have dealt extensively with re-arrangements of mooring equipment, installations of strong points, reinforcement of diminished mooring areas and more, preparing solutions against various regulations and needs.

With up-to-date software we could also determine **improved SWL** of existing items (e.g. chocks or bitts of 60TN or 84TN) to the required values (e.g. SWL 64TN and 90TN respectively), provided that the existing structure is not limited.

Our services include preparation of the preliminary arrangement of the mooring equipment, seeking approval from Panama Canal Authorities and thereafter preparation of all relevant drawings and documents for the modification or installation of new chocks and/or bitts and other required items.

It is strongly proposed, as a first step, an assessment of the current condition of the ship and preparation of a proposal for the necessary modifications or new installations and associated hull strengthening.

### STUDIO NAVALE Maritime & Technical Ltd.

Industrial Part of Schisto (VIPAS), Block 1, Street 1&2,

GR-188 63 Perama, GREECE

Phone +30 210 4000901

Fax +30 210 4000415

E-mail [InfoDesk@studionavale.gr](mailto:InfoDesk@studionavale.gr)

Contact **Alex Kouros** at +30 6936709950 or [ak@studionavale.gr](mailto:ak@studionavale.gr)