

Technical eNewsletter

Panama Canal expansion – what will be required for New Panamax vessels?

The Panama Canal Authority (ACP) is progressing well with its expansion programme to virtually double the tonnage capacity of the Panama Canal. The works are planned to be completed in 2014, when a new third lane of locks will be available for New Panamax-sized vessels.

For shipowners with existing post-Panamax vessels and/or with plans for large newbuildings, the requirements for such New Panamax vessels are of interest. Our DNV surveyors in Panama have recently spoken to ACP and in this newsletter we share the latest information on such requirements for New Panamax vessels.

The programme consists of the construction of two new lock complexes, one on the Pacific and one on the Atlantic side of the waterway, in order to provide a third lock lane capable of handling vessels of greater beams, lengths and drafts. The programme also entails the widening and deepening of existing navigational channels. Each of the new lock complexes will have three chambers, and each chamber will have water-saving basins. The new locks will use rolling gates instead of the miter gates used by the existing locks and ACP will use tugboats to position the vessels instead of locomotives.

	Panamax	New Panamax
Length	294.13 m (965 ft)	366 m (1,200 ft)
Beam	32.31 m (106 ft)	49 m (160.7 ft)
Draft (TFW)	12.04 m (39.5 ft)	15.2 m (49.9 ft)
TEU	approx. 5,000	approx. 12,000

The max air draft will continue to be 57.91m (190 ft) due to the Americas Bridge in Balboa. The cargo DWT or TEU capacity is limited only by the vessel dimensions permitted.

When the expansion is completed in 2014, the navigational channels will allow the transit of present post-Panamax containerships, Suezmax liquid-bulk tankers, Capesize dry-bulk carriers and larger sizes of liquefied natural gas carriers, passenger ships and other vessel types within the dimensional limits established above.

It is understood from ACP that in general the new lock requirements for boarding facilities, the mooring arrangement, bridge wing layout, navigational equipment, visibility, etc, will follow the existing rules, with possible modifications pending the final design and determination of vessel operations around the new locks.

Closed chocks and other mooring fittings will still be required to facilitate tug assist operations on the bow and stern of vessels inside the new locks using ropes instead of locomotive cables. Please refer to the annually published OP Notice to Shipping – vessel requirements (presently Notice No. N-1-2011).

www.pancanal.com/eng/op/notices

Protrusions will be evaluated against equipment above the walls and inside of the new locks, such as light poles (not decided yet), and the use of tug boats and fenders on the walls (still to be decided). As a minimum, protrusions beyond the ship side will not be accepted unless they are 15 m and more above the water line. The acceptability of any extension/protrusion from the hull if located higher than 15 m will remain pending until the new lock construction design is determined.

Although the ACP awarded the new lock building contract more than a year ago, the builder has yet to finalise the design. The ACP does not expect the new regulations to be issued until late 2011, after the design of the new locks has been decided on.

It should maybe be expected that the ACP requirements regarding the number, size and location of chocks and bitts will be

updated for vessels passing the new larger locks, since the tonnage of a single vessel may double and a new mooring system is used. For a shipowner in the process of designing a newbuilding, this is of course vital information to know at an early stage. However, the indications from ACP are that the requirements in principal will remain and that the final detailed requirements will not be ready until the end of 2011.

All vessels wishing to transit the new locks will eventually have to submit their drawings for review to the ACP. However, any plan reviews requested prior to the final resolution of the pending issues mentioned above will receive only 'provisional approval'. The ACP reserves the right to request new and existing vessels to comply with additional requirements as these are developed, in order to ensure the safety of vessel transit operations.

Details on the Panama Canal Expansion Programme are available on the Panama Canal website. www.pancanal.com

See especially the following documents on the ACP web site:

[Panama canal expansion programme 2010](#)

[Proposal for the Expansion of the Panama Canal - Third Set of Locks Project \(April 2006\)](#)

[OP Notice to Shipping No. N-1-2011 / Vessel Requirements](#)

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