

## FFO INCIDENTS RISK PREVENTION ADVISORY LETTER

Ingosstrakh's P&I Correspondent in Russia Messrs. ANтарICA Ltd., keeps us in loop of update concerning the policies FFO incidents risk prevention.

Antarica's years of experience on FFO damage cases in the ports of Novorossiysk, Taman and Tuapse has shown that the risk of such damages can be substantially reduced or eliminated if ships' Masters and participating staff will be aware of specific information prior to the berthing. Therefore, the following information is aimed to help Owners and Masters of the vessels calling the mentioned ports. The number of berths in the ports of Novorossiysk, Taman and Tuapse are equipped with the Trelleborg MV type fenders or fenders of the same construction from other Manufacturer. And while the fenders can resist to deformations and absorbs loads when the vessel is alongside, there are number of cases of damages to such type of fenders and their elements during mooring operations. The risky points and main circumstances leading to a potential damage will be discussed in the sections below.

### **Trelleborg fenders arrangement on berths in the port of Novorossiysk**







Trelleborg fenders arrangement on berths in the port of Tuapse





## **1 RESPONSIBILITY AND ROLE OF THE PILOT IN THE BRIDGE TEAM**

The most important fact is that a pilotage means that the vessel is operating in a high-risk area. The vessel's crew cannot afford to relax and leave it to the pilot. The role of the pilot must be well understood and discussed during the MPX meeting. The pilotage does not relieve the Master from his responsibility while the main purpose of the pilot is to assist the bridge team and to provide local knowledge and share ship – handling experience in the particular port.

We noted that it is a common practice when the Pilots give orders to tugs in Russian language and foreign Masters often are not completely clear on the Pilot's intentions. It is worth to mention that during the pilotage and especially approaching to the berth the pilot should be monitored by the Bridge Team members rather than over-relied on him. For these purposes, a ship working language should be agreed during the MPX meeting and relevant entry made in a Pilot Card.



### Example of Pilot Card filling with regard to agreed working language

ECDIS key factors:				<input checked="" type="checkbox"/>
▪ The ENC's and updates available and applied to the ECDIS for the port and approaches;				<input checked="" type="checkbox"/>
▪ If applicable, any non-standard configuration of ECDIS.				<input checked="" type="checkbox"/>
Bridge Team members the roles and responsibilities				
Working Language agreed		Pilot / Bridge Team	<input checked="" type="checkbox"/> English	Pilot / Tugs
<b>Main Engine Details and Fuel in Use:</b>				
▪ Fuel Oil in use (FO / MDO / MGO / LNG)		0.1% Sulphur content		FUEL OIL
▪ Is the ME power output similar when burning low sulphur fuels / high sulphur fuels?				Yes/No
▪ If 'No' what is the difference in power output?		+ / -		n/a %
▪ The fuel oil type in use including any changes in the power output and reaction times of the engine				<input checked="" type="checkbox"/>
<b>Under Keel Clearance</b>				
Minimum Calculated Available UKC:	4.79 m (WP-68)	Estimated Squat	0.10 m (3.0kn) 0.20 m (5.0kn) 0.50 m (8.0kn)	Minimum Safety Depth: Underway (3 kts / 5 kts / 8 kts) At Anchor (0 kts) / At Berth (5%)
				3 kts / 5 kts / 8 kts 9.5 m / 9.6 m / 9.9 m 9.4 m / 8.5
Company UKC Policy: Min UKC of 50% of Deepest Draught				

## 2 PRE-ARRIVAL INFORMATION

As a common practice, Pilots and Port Authorities carry out their own planning for a vessel's arrival applying the information received from the vessel to berth characteristics. For these purposes, a filled in Pilot Card should be sent to the Pilots Station at least 48 hours prior to arrival and depending on the particular port requirements. And to prepare the vessel, the information from all available sources must be examined and ship's Agent requested for the latest port regulations. Such regulations should include the berth and its FFO limitations (i.e. method and angle of approaching, maximum deadweight and maximum approaching speed). The same must be confirmed by the Pilot and relevant entry made in Pilot Card.

## 3 COLLECT EVIDENCE AND BE PROACTIVE

The study of number of cases has revealed a formal approach to the Pilot Cards administration by crew. It was noted that crew tends to input a limited amount of information into the Pilot Card, however this document can be valuable evidence in case of any FFO incidents. As many details regarding the approaching maneuver and berth limitations must be stated as possible. The Pilot must be consulted in this regard.

Another point of concern is a condition of FFO, the berth's fenders in particular, prior to mooring. This might be difficult to assess; however, all efforts must be undertaken for the purposes of FFO condition assessment.

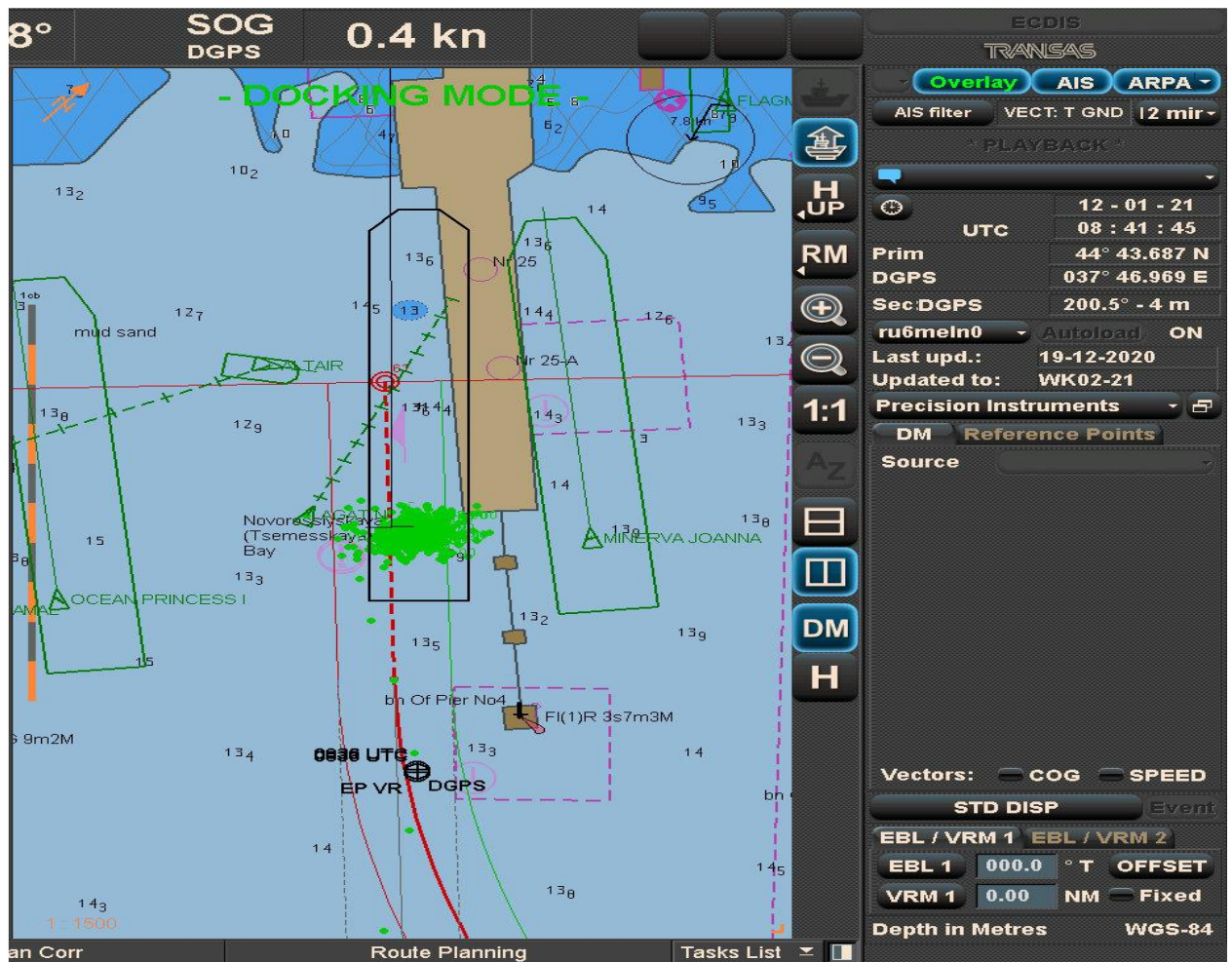
One of the best methods can be visual examination with binoculars while the vessel is slowly approaching to the berth. This can be done from the main deck and from the bridge wing as well. And once any abnormalities are noted, the Pilot must be informed immediately, and relevant remarks made in Log Book and Pilot Card.

## 4 SMOOTH APPROACHING AND MOORING

Smooth approaching, mooring, and adjusting the vessel to the proper position against loading arms/facility is a key factor to the prevention of damages and further claims escalation. Having handled the FFO damage cases, we noted that mentioned fenders construction (consisting of the MV elements and shield) is not tolerable to fore and aft movements of the vessel when the fender is in contact with hull of the vessel and especially when it is under pressure developed by the pushing tugs. Number of Pilots and Masters tend to adjust the vessel once she already touched the fenders by the means of

mooring lines without giving an order to the tugs to stop pushing the vessel towards the berth. Such adjustments against the arms position creates breaking loads in the shock absorbing elements of the fender, which certainly leads to the damages of the fenders as a result. Therefore, it is strongly recommended to keep the vessel's hull off the contact with fenders till the vessel is finally adjusted alongside.

### Approaching angle on the ECDIS screen



Another important factor while approaching to the berth equipped with MV constructed fenders is the approaching angle. By the reason described above, the approaching should be made as much parallel to the berth line as it's possible and safety practicable. Once the vessel is finally moored, it is recommended to visually inspect the condition of all the fenders which the vessel was in contact with during berthing and take photos of places of hull where contact between the hull and fender shields was observed. If possible, the officers on the mooring stations must take note of such contact recording the place (frame) and time. If the crew is not allowed to step down on the terminal or take the photos for some reasons, the postmooring condition of fenders should be assessed at least from the main deck of the vessel.



Cracks on the shock absorbing elements of the fender



## Rubber traces and scratches on the vessel's hull



## 5 THE ECDIS MINDSET

Nowadays all cargo vessels are equipped with the Electronic Chart Display and Information System (ECDIS) which is not only a paper charts replacement but also a very powerful tool during maneuvers. The key factor of understanding that is a navigators' mindset. Since we have stepped into a new digital era with all the electronic devices which let us forget about burden of paper administration and plotting the ship's position every three of six minutes on approaching to the berth, we have access to the vessel's motion parameters in real time.

Every single berth has its own limitations, including the maximum approaching speed depending on the vessel's displacement. Below the recommendations from "GUIDE ON HANDLING VESSELS AT PJSC "NCSP" TERMINALS" in the port of Novorossiysk, however this quite important and should be checked and reconfirmed by the ship's agent and the terminal before arrival.



## Quote

4.11.6. When performing mooring operations, the speed of vessels' approach with the berth provided that the displacement of vessels should not be higher than the values indicated below:

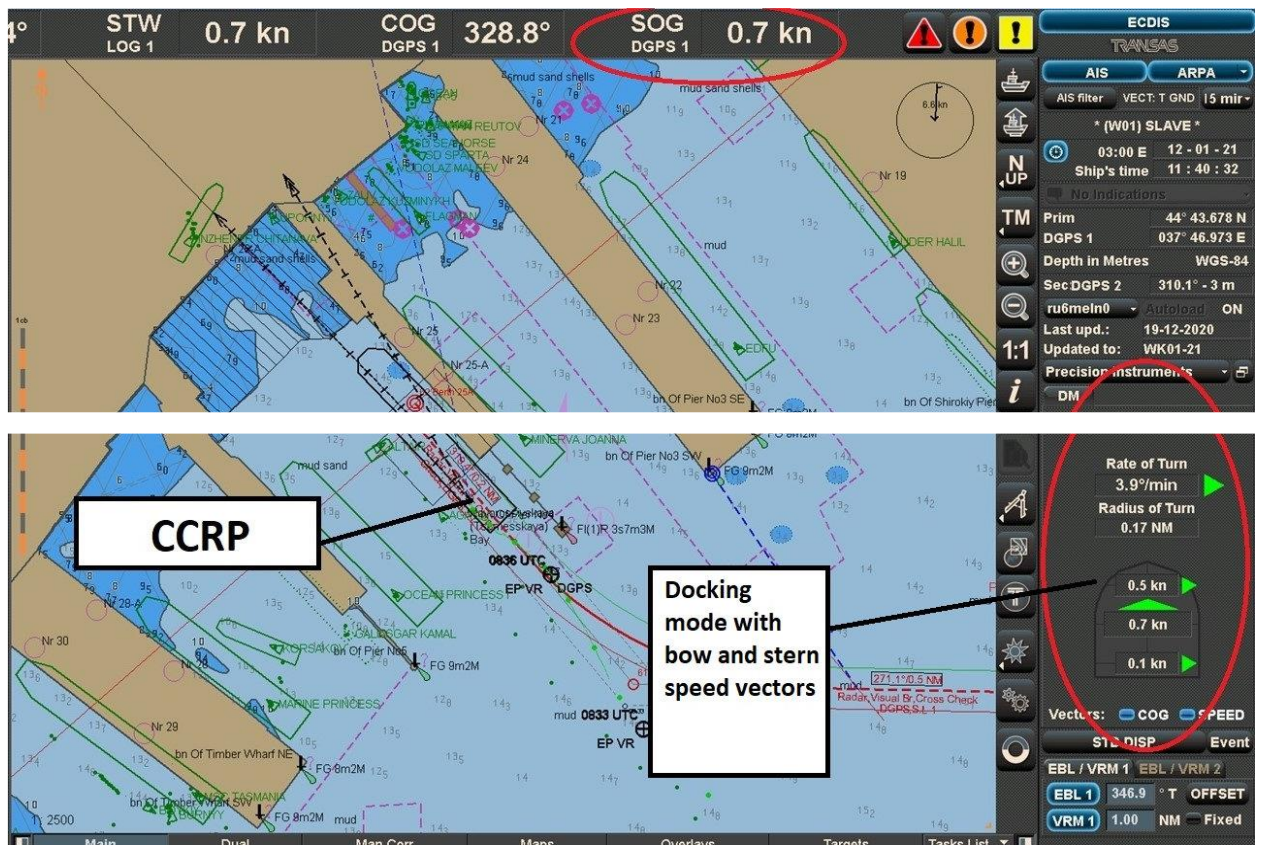
- up to 2000 tons - 0.22 meters per second;
- up to 5000 tons - 0.15 meters per second;
- up to 10,000 tons - 0.13 meters per second;
- up to 20,000 tons - 0.10 meters per second;
- up to 40,000 tons - 0.09 meters per second;
- up to 100,000 tons or more - 0.08 meters per second.

## Unquote

Keeping in mind these limitations it's important to understand that the speed indication equipment readings relate to the places where it installed. And this means that if the SOG (Speed over the ground) at any time of the approaching to the berth is 0.2 knots its not equal within the whole length of the vessel's body. The same is applicable to the ECDIS. The system calculates the SOG of the CCRP (Consistent Common Reference Point), which is usually a place of GPS antenna installation. And while the CCRP speed can be within the limits either bow or stern speed may be extensive during manoeuvring.

This situation is explained in the example below on the TRANSAS equipment.

## Transas ECDIS screenshot during approaching maneuver.



As illustrated above, the ECDIS is capable to provide the operator with three speed vectors and this can be useful in the situations when the vessel is almost stopped and pushed by tugs only. While the SOG is nearly zero, the bow speed can be excessive if the tugs push the vessel extensively and produce rotation movement around CCRP.

It's worth to mention that in order to have precise vessel's motion parameters the ECDIS needs to be set up correctly and data (vessel's length, breadth, antennas' position etc.)



must match the real numbers. This can be rechecked and corrected manually by the operator depending on the ECDIS maker.

## **6 GENERAL COMMENTS**

Concluding the above information, it must be brought to the attention of ship's Administration that the construction of mentioned fenders and their mounting to the berth wall stipulates no or extremely limited movements alongside when the vessel (her hull) is in physical contact with them.

It is important to understand that critical tension applied to the fender causing its damage in most cases almost imperceptible to the crew and therefore both Pilot and Master cannot even imagine that the vessel is causing the damage and further they are not admitting responsibility basing on their view on this fact.

As well the same damage to the fenders can be sustained during heavy pitching and rolling while the vessel is already alongside and fastened tightly. The vessel must be aware that the claim may follow up in cases where a rough contact with fenders were experienced as a result of such pitching and rolling.