



LP Bulletin

Friday 25th May 2012

Bulletin 826 - 05/12 - Cappuccino Bunkers - Singapore

It has come to the Club's attention that some bunker deliveries at Singapore have contained excessive amounts of air. As a result the quantity of fuel delivered and received was significantly overstated. This effect is termed "Cappuccino" as the entrained air causes the fuel to "foam" which makes traditional manual measurement at the time of delivery unreliable. After a few days the foam tends to collapse and tank measurements then show a significant "loss" of fuel. The following guidelines have been compiled to assist ship's crew with identification of this potential problem and hopefully help with dispute resolution.

The following precautions should be taken when the bunker barge arrives alongside the receiving ship;

1. Under the Singapore bunkering procedure safe access to and from the delivery barge is to be provided by the ship. This may comprise an accommodation ladder or pilot ladder or a combination of both. Safe access is important as a competent member of the ship's crew, preferably the Chief Engineer should attend on the barge to carry out measurement of all the barge tanks before the delivery starts. This should be done even if an independent Bunker Surveyor has been appointed.
2. All barge tanks, including any tanks declared empty or not intended for this delivery must be measured and the temperature of the contents established. This must also include any slop or waste oil tanks. The drafts of the barge should also be obtained. It is important that when these measurements have been made that the barge Master and Chief Engineer sign a record of these measurements.
3. Opening of ullage hatches or tank hatches should provide an opportunity to observe any foam on the surface of the bunkers. Foam may also be detected on the ullage tape. If there is no foam then the oil level on the tape should appear distinct with no entrained bubbles. If by observation of the tape and the surface of the fuel you suspect entrained air then obtain a sample of the fuel by lowering a weighted bottle into the tank. Pour the sample into a clean glass jar and observe carefully for signs of foam or bubbles.

4. If these observations show entrained air the Chief Engineer should not allow the bunkering to start and contact his head office immediately. If the fuel is being provided by a charterer then they need to be made aware of the problem. Owners and/or charterers should then request for an investigation by an independent Bunker Surveyor. The barge Master should be issued with a letter of protest and a copy sent to the ship's agent. If the barge Master decides to disconnect from the ship and go to another location then the agent should immediately inform the port authority and try to establish where the barge has gone. All relevant times and facts should be recorded in the deck log book.

Before delivery starts

5. The Chief Engineer should discuss with the barge Master which barge tanks will be discharged during the bunkering and check that the quantity held in these tanks is consistent with the quantity to be delivered and that on the bunker delivery receipt.
6. If the Chief Engineer has not observed any entrained air during the initial barge survey it is still possible that air can be introduced to the barge tanks or the delivery line during the pumping period. The Singapore Bunkering Procedure SS 600 prohibits the use of compressed air, from bottles or compressors during the pumping period or during stripping and line clearing. It should be confirmed with the barge Master that he will follow this procedure (Reference SS600 paragraphs 1.12.10/11/12/13). Stripping of barge tanks can also introduce air and stripping should only be performed at the end of the delivery for a short period of time. The barge Master must agree to inform the Chief Engineer when he intends to start stripping and when it has been completed.
7. It is important that the Chief Engineer measures and records the contents of all his bunker tanks before the delivery starts and if an independent surveyor is attending he should be asked to verify this record.

During the delivery

8. Ship's crew need to be alert during bunkering and check for the following signs:
 - Bunker hose jerking or whipping around.
 - Gurgling sound when standing in vicinity of bunker manifold.
 - Fluctuations of pressure indication on manifold pressure gauge.
 - Unusual noises from the bunker barge
 - Excessive bubbles observed on the sounding tape while taking sounding of bunkers in the ship's tanks.
9. These observations suggest that air is being introduced into the bunkers and the Chief Engineer should request the barge Master to stop the pumping operation. The Owner's office and/or the charterer need to be advised. The Chief Engineer should attend on the barge again to take measurements and record the contents of all the tanks and obtain the signature of the barge Master on this record. The contents of all the ship's bunker tanks need to be recorded. A letter of protest should be issued to the barge and the ship's agent advised. All pertinent details should be recorded in the ship's deck log book.

10. If the delivery is suspended for the above reason an independent surveyor should be appointed by Owners or Charterers to evaluate the situation and the agent should inform the port authority.
11. The bunker receipt should not be signed and no agreement reached with the barge Master on the quantity discharged or received. This should be checked and verified by an independent surveyor. Again, if the barge departs then the time of departure needs to be recorded and the ship's agent advised.

After the delivery

12. Assuming that the delivery has been completed without incident the Chief Engineer should then re-measure ALL the barge tanks and perform calculations, using the approved barge calibration tables and the appropriate petroleum tables to establish the quantity discharged by the barge. He would also measure his bunker tanks and calculate the quantity received.
13. The barge outturn quantity should be similar to the ships received quantity.
14. If there is a significant difference (more than a few tons) between the barge outturn and the ships received figures then the Chief Engineer should repeat the measurements of the barge and ship tanks.
15. If the difference between ships received figures and barge figures is significant and this cannot be explained or resolved then Owners and Charterers should be informed and they should appoint an independent surveyor.
16. As a further check it would be prudent to re-measure ALL the ship's bunker tank contents about 12 hours after the delivery to check for any apparent loss but remember it would be very difficult to resolve any differences after the Chief Engineer has signed the bunker delivery receipt.

This advice given above is an extract from the forthcoming book by Chris Fisher to be published later this year and is re produced with kind consent of the author.

Source of Information:

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