

Marine Surveying

– It's benefits to
Commercial Shipping &
your Company's bottom line

“Good, the Bad, and the Ugly”

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ICS ME SILVER JUBILEE CPD WEBINAR SERIES

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“Value” Discussion From a Commercial Perspective.

Case studies and lessons learnt from professionalism:

Cases discussed:



- ✓ Ship Owners (Off Spec cargo – tankers)
- ✓ Chartering (Fuel Supply Claims)
- ✓ Maritime Logistics and Trade (Transportation as Break Bu
- ✓ Ports and Terminals (Warehousing)- Steel imp
claims
- ✓ Ship Agency (Lashing of OOG Cargo
for Export)
- ✓ Insurance (Yacht Engineer Seizi
claim)
- ✓ Offshore logistics & Barging (Towing & lifting gears)

Case 1: Tanker Loading – OFF SPEC Cargo (Benefit for Ship Owner and/or Underwriter)

Fact: *A 99K DWT tanker vessel was presented for inspection upon completion of its first foot loading of a cargo of gasoline*

- Joint sampling conducted by Shippers and charterers surveyors, and subsequent testing, showed the cargo loaded to be off specs. (Failed flash point parameters)
- The vessel shifted to anchorage, pursuant to which the vessels owners IG P&I club requested us to attend.



What We Did (to find facts):

- Attended the lab for testing of these samples together with other interests. (upon witnessing first foot sample extraction)
- We discovered, post testing that Gasoil in all the nominated tanks 1P&S, 4P&S, Slop P&S was Off Specification (as the minimum flash point requirement was 60 degree Celsius.)
- The shore tank sample was jointly tested by us for flash point, and it was observed passed (flash point very close to the minimum required).
- This presented a unusual problem for the owners, since the supplier cargo was in specs.

Contributed by: Capt. Vispy Dadimaster



Case 1: Tanker Loading – OFF SPEC Cargo **(Benefit for Ship Owner and/or Underwriter)**

What we did (to find facts):

- We remained cautious of these theoretical calculations (in spec) and urged the owners through the P&I club, as a safety net, to have a blend sample prepared between the first foot sample (4.16% by volume) with the shore tank sample (95.84% by volume) and have its laboratory tested.
- Indeed, this sample failed the minimum flash point requirement (result 58.5°C vs minimum required 60°C)
- The vessel thereafter re-arrived the FOTT terminal and was presented for loading after the initial first foot Off-spec cargo was transferred to Tank # Slop P and was discharged at Vopak Terminal, Fujairah.
- We found out that DL No. 5 and DL No. 7 were being used to feed the vessel its cargo the second time. Both DL samples were tested, and indeed, DL 5 sample resulted with reading of 51.5°C and DL 7 with 60°C.
- The Port facility thereafter carried out line pushing for DL 5, pursuant to which we again tested the sample from DL5, and results obtained were 61.5°C.

Contributed by: Capt. Vispy Dadimaster



Case 1: Tanker Loading – OFF SPEC Cargo **(Benefit for Ship Owner and/or Underwriter)**

Our Value Addition

- We ensured what is commonly known as good practice – Had we relied solely on the results of the theoretical calculation of volumetric dilution, and not insisted to corroborate the results by a lab test of a bled sample by volume, it was certain that during the initial loading, the vessel would have ended up with a full load cargo being off spec (v/s only dealing with first foot being offloaded).
- We continued to sample, test and monitor, and consequently were able to identify the issues related to off spec cargo within DL 5, quickly, and prevent further issues.
- Tangible action to protect our customers' interests was taken – not only did we identify the DL 5 issue during the second loading, but we also liaised with operation owners (terminal and supplier) to ensure prevention of further loss by convincing them to isolate DL 5 from the matrix manifold.
- We also investigated the initial issues with contamination, and found a likely leaking manifold cross over valve, the possibility of vapor phase contamination, in view that vessel was initially also loaded with MOGAS in the remaining tanks.

For full story, go to <https://constellationms.com/tanker-loading.html>

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Lets discuss: Bottom line benefit?



Case 2: Yacht Engine Seizing (Local Yacht Underwriters)

Fact: *It was reported that the outboard engine of a yacht had stopped working. A statement released by Yacht company said that there was a noise and on checking “hard rope” had got entangled in the propeller of the outboard engine causing engine damage.*

Scope of Survey

- *We were appointed by the underwriters to investigate the matter to report the cause, nature and extent of machinery damage.*

Our Observations

- The engine was already in a dismantled condition at the time of survey. (2 hours turn around post nomination)
- There was an appearance of a whitish colours to the remnants of the lube oil present in the engine casing.
- Investigation revealed that there was a hole in the gasket.
- Further investigation revealed that there were burn marks on the cylinder head.



Contributed by: our Staff Chief Engr. Ramesh Krishnan



INDEPENDENCE AND EXPERIENCE IN SURVEYING

Case 2: Yacht Engine Seizing (Local Yacht Underwriters)

Value Proposition of Surveyor's Attendance

- There was a section under policy schedule under warranties subsection which states that the engine overhauls have to be done on time and documents to that effect must be available for review. It is not known till today whether the yacht owner has carried out the O'hauls on time and also he has not produced any evidence to the overhauls even after persistent written communication (as the onus is on the claimant) .
- We were to put evidence that the cause of engine seizure was due to following tell-tale factors :
 1. There are burnt marks on the cylinder head.
 2. There was a hole in the cylinder head gasket caused by overheating.
 3. As a result of hole in the gasket the cooling water mixed with lubricant oil affecting its lubricity, causing the engine to seize.
- A mere act of propeller getting entangled in a HARD rope (rope is not normally hard) would have stopped the engine (but not caused seizing of the engine). In depth knowledge & deeper investigation of facts and tell tails payed its rewards.

Lets discuss: Bottom line benefit?

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Case 3: Lashing of OOG Cargo (Agency) (OOG = Out of Gauge)

Fact: *The shipper intended to secure feet long pipe casing on multiple 40 feet flat rack as per the international safe practice .*

Principals had the onus of choosing a professional for this job.

Scope of Survey:

- Nominated to plan the lashing arrangements and supervise execution (Marine Warranty) & issue Certificate of Approval prior load out.

Value Proposition of Our Attendance:

- Naval Architects prepared sketch for the cargo arrangement on flat rack container as per CSS and CTU Guideline.
- Collaborated with lashing team for full loop and Olympic loop lashing.
- Supervise each tier lashing. (clarifying important distinction)
- Supervised & certified securing of pipes casing on flat-rack container. (Taking to the account vessels GM)



Contributed by: our Staff Naval Architect Fahad Ansari



INDEPENDENCE AND EXPERIENCE IN SURVEYING

Case 3: Lashing of OOG Cargo (Agency)

(OOG = Out of Gauge)

What If a Less Competent Surveyor Was Appointed?

- Potential for improper securing of the pipe casing on flat rack could potentially collapse the complete stacking (or loosen up during passage).
- Flat rack could have been rejected by port for acceptance and carrier slot could be missed (loss of reputation).
- Lashing team would have done the lashing as per their knowledge without following the Marine Guideline. (Thumb rule usually over compensates lashing material and caused additional expenses and loss of time).

Lets discuss: Bottom line benefit?

Reputational loss?

Primary & Secondary customer concept?

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Case 4: Boat Transportation as break bulk (Logistics)

Fact: Boat provided afloat & specs with vessel's GM & location planning given

Scope of Survey:

- Calculate a lashing plan to load and supervise securing a boat as breakbulk cargo on a container vessel.

Value Proposition Of Surveyor's Attendance:

- We reviewed the lifting plan proposed by the port by calculating the loads with reference to SWL.
- We developed the lashing plan as per the IMO Annex 13, CSS Code.
- Pre-load condition of the cargo was recorded and documented.
- Master Mariner surveyed the safe lifting loading and securing of the cargo on the carrier as per the Method Statement drawn out by us and accepted.

What if a Professional Surveyor Was Not Appointed?

Value add to the bottom line or reputation of logistics provider?



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Case 5: Fuel Pumps Seizing (Charterer's Fuel Supply)

Fact: 12 Nos. plunger and barrels of the fuel pump of the Auxiliary engines belonging to a ship had seized. 8 Nos plunger and barrels of the fuel pump of the Main engine had also seized. There was sludging of the fuel evident.

Ship owner allegedly poor Bunker Supply as causation of this problems.

Scope of Survey

- Charterers of the ship had requested for an investigative survey for the all the sampling and testing of the alleged bunker fuel said to be causing the above problem.

Independent Observations

- The plunger and barrels of fuel pumps of both Main engines and Auxiliary engines were worn out and sticking. The chrome polish on the plunger had vanished.



[Contributed by: our Staff Chief Engr. Ramesh Krishnan](#)



INDEPENDENCE AND EXPERIENCE IN SURVEYING

Case 5: Fuel Pumps Seizing (Charterer's Fuel Supply)



Value Proposition of An Honest Surveyor's Attendance

- Our investigation led us to the lab analysis report which indicated that the fuel which was tested as per ISO standards, apparently seems to have been met the specification of the fuel. The fuel which was the cause of the above problem was supplied by charterers .We were able to put the charterers in a defending position.
- We were able to put forward the comingling issues between two bunker fuels. The heavy oil settling and service tanks are to be emptied and cleaned before letting a new parcel of bunker fuel. The above has not been proved nor documented by the owners. As known as, comingling issues can cause sludging of the fuel.

Lets discuss: Bottom line benefit?

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Case 6: Vital Role During Discharge of Imported (Warehousing & Port Stevedore)

Fact : *Surveyor was nominated to attend a joint survey to investigate cargo appearing in rusty condition.*

Scope of Survey:

- Inspection of cargo in the presence of the consignee's representative.
- Silver Nitrate testing of cargo to determine presence of salinity traces on the cargo surface.
- Extent of damage due to rusting, including causation.

Surveyors Attendance at the Yard:

- The attending surveyor had checked the shipping marks stipulated on the cargo with the packing list and Bill of Lading. (Which indicated clean cargo – free of rust).
- Silver Nitrate test was carried out at 10% random basis on the rust affected cargo and was found that there was no salinity on the cargo. Further investigated on this matter and it was proven that few days ago there was heavy rain fall (As per the weather reports), and all the cargo which they stored in their open yard and was completely affected by the water rain.



Contributed by: our Staff Mr. Jos Roy



INDEPENDENCE AND EXPERIENCE IN SURVEYING

Case 6: Vital Role During Discharge of Imported (Warehousing & Port Stevedore)



False Allegation:

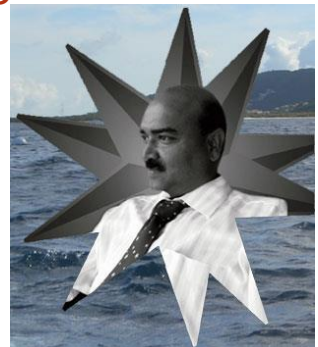
- We investigated at that time the price of steel had fallen. In order to protect the consignee's interest, they appointed a local surveyor and made their survey report in their favour and they claimed to the charterer that due to salinity affect the cargo couldn't be sold in the present market and all their clients rejected the cargo due to the above reason. Therefore, they rejected the entire cargo and claimed.
- This matter was immediately brought to the notice of our Principal and we submitted our independent report.

What If a reputed Surveyor Was Not Appointed?

- If a qualified trustworthy surveyor was not appointed, there could have been possibilities of claim being manipulated.
- Nomination of a surveyor must be to a reputed establishment or so that they would give the real facts of the survey will be presented and investigate deeper than the prima facie evidence.

Lets discuss: Bottom line benefit?

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Case 7: Ship's Lifting & Towing Gears Inspection

Fact : *Loose Gear Inspection & Certification*

Scope of Survey:

- Loose gear inspection and certificate renewal, turn around time 2hrs from call.

Value Proposition Of Surveyor's Attendance:

- Condition inspection of each gears with identification marks.
- Checking of operating condition of each gears
- Inspection of load test certificate
- Bridle wire of the barge was seen rusted with lack of greasing (effected immediately)
- Strands of steel was broken which could have reduced the actual SWL of the wire
- The damaged wire was replaced with new spare wire

What If The Surveyor Was Not Appointed?

- The broken strands bridle wire if not replaced it would have parted during the loaded tow voyage and , may have damaged own and other vessel or ports property resulting in avoidable claims.
- If the loose gear was inspected timely the spread, could be rejected for towing and delay charges from port would become to the owners /account



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If you need a comfortable & fulfilling surveying experience,
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