



Interview Summary

Please Print Clearly:

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Position: Coast Guard Investigating Officer

I, the undersigned, make the following statement voluntarily, without threat, duress or promise of reward:

CWO [REDACTED] & NTSB conducted a joint interview on March 22, 2021 with the Engineer Superintendent Ravi Rawat with Houston Ship Repair hired as a technician on the RIVERSIDE. Representatives from Royston Razor joined representing the MODA dock, Representatives from Welder Leshin joined representing the vessels interest and Liam O' Connell joined representing the P&I club for the vessel. The Engineer superintendent was not represented by an attorney. The below is my summary of the interview.

Mr. Rawat was told of the incident and hired to inspect the main engine.

He began checking the controls and everything. Mr. Rawat came to the conclusion that a pneumatic valve which was supposed to get the puncture air through the fuel valve. One of the valves was stuck and it was not operating correctly. Ahead movement is always easy for a ship, but to go astern the vessel needs more fuel. With the vessel being fully loaded, the vessel needed more momentum and that is why the vessel missed. #25 valve was giving way to the puncture air for all the fuel valves in common. When you give a stop movement command to the engine the #50 valve is supposed to actuate and release all the air and all the fuel from the fuel pumps and there was issues with #1 and #6.

There was another leak on valve #45 which was rectified later once spares received, not as important and is a reducer valve. VIT, you do not need to have as much pressure, it's on the common line, if it is leaking badly, then it can cause misfires.

#25 was cleared and overhauled but they could not test the engine without permission from the port. They attempted the engine multiple times once able to check the engine and it operated without fail.

The fuel pumps were recommended to be overhauled every 1000 hours and not overdue but they were almost there at 6800 hours. All six needed to be changed

The crew did not have any idea what had happened, log book was updated, nothing was suspected to be missing, etc. Engineers had all the drawings and everything prepared prior to the

technicians arrival. The tech had them open all drains and manifolds because he suspected that there was water in the systems that could have come down after the hard rain, everything was clean and clear. His second action was the fuel system. The fuel pressure system seemed fine, all the parameters was good. The third thing was the pneumatic system from the ECR, The finally thing was the safety valve, #25, the ship was in the stop position so the safety valve should have nothing, but when they opened it there was a gush of air, and that could have prevented #6 from operating. The fuel was recirculating inside the tanks, this was rectified.

The crew was doing what they could and was headed in the right direction, they were checking everything, including air pressure, distributor valves, and they had already rectified issues prior to his arrival. The #25 valve never fails.

To clarify, the air was trapped in the #25 valve which caused the #6 valve to not operate correctly. If the air is stuck in the safety valve, then it cannot release the fuel in the system, this would cause the fuel pump to be stuck in the re circulation mode and not being injected into the pistons and the engine will not properly fire and will fail.

There obtaining 12-15 rpm, and this indicated to the technician that the #45 valve was not the issue, because if it was the vessel would not have been able to reach the speeds it was able to.

The technician was not told about any previous issue, the technician mentioned the switch over to the crew, that it could cause issues. The crew confirmed that they changed over to the LSFO prior to the vessels arrival in the US as required.

The technician has been in this position for over 30 years.

The technician felt the overall condition of the vessel was in the middle as far as the spectrum of being maintained.

The Chief Engineer did not mention to the technician that he cancelled the limit mode on the engines but he did not ask either, he did not investigate but just asked them to tell them the truth so he can find the problem.

When asked what happened when they cancel the limits on the engine; the technician stated they have 15 reasons for a slowdown; high temp, low pressure, etc., and multiple types of the cancel limits; start limit, scavenge limit, etc.?

When asked if it was advisable to lift and limits at any time, the technician stated that it is sometimes appropriate.

The MAN technician stated that the #6 valve was the distribution valve was not operational however, the technician did not agree with that. The technician stated that the valve may have been sticking but he thought it was more of a problem that the #25 valve (which only works in the stop position) It relieves all the air from the valves and relieves all the pressurized fuel which effectively stops the vessel.

All six valves along the common line get equal pressure, same line, and same manifold. #6 valve, had little trapped, this valve was in recirculation mode. You need to have proper pressure on all 6 valves to move the vessel, but ahead is always easier than moving astern. #6 valve has a little pressure but should not have had any air pressure. It was not properly re setting due to the

trapped air released by #25 safety valve. This would partially explain why the engine would sometimes start and other times fail to start.

Cancelling the limit mode would do nothing to change the vessel in its pre casualty condition.

The technician stated that during every operation, they should be checking each valve operation on the engine. The control air, scavenge air should be looked at each time. The cleaning should be done every year and overhaul he recommends every three years.

The technician mention the control air dryer was not really working and that it should be repaired or replaced as soon as possible. When this was brought up to the crew, they said it was a priority for them and that they were working on it. They were given the wrong spares onboard for the air compressor but when the technician mentioned it, the crew was more aggressive in repairing or replacing the control air dryer.

The technician stated that when the vessel is already in operation, cancelling the limit will help to supply more fuel if it is starving, however when the engine is not yet started it will not make a difference for the vessel. Without proper air and fuel, nothing will help the vessel to operate.

The technician stated that in the case of this vessel, when they were able to start the engines by cancelling the limit switch, the crew would have to go to the local control station, put the controls in their hands, bypass all the safety and in that case cancelling the limit mode will in fact help the vessel to start the engine.

If the fuel valves are in the recirculation mode, even going to the local control station and bypassing the cancel limit mode, will not help.

The control air dryer cools and removes all moisture from the air which prevents corrosion / oxidation inside the valves.

The control air dryer was not working at all and was completely off at the time that the technician was onboard. The crew ordered spares but they were the wrong type.

CWO [REDACTED]

[REDACTED]