

September 19, 2013

Mersen Gonzales has completed repairs and returned exchanger as follows. Unit was received with 50 plus plugged tubes and severe gaskets head leakage on the fixed end. It was found that the tubesheet gasket face was deteriorated or flaked off causing gasket failures. Choice made to repair/machine both tubesheets to restore gasket surfaces. After cleaning tubes, a good test was then put on exchanger. 2 tubes were found leaking but the fixed tubesheet right at the gasket area was severely bleeding. This could have been the leak instead of the gasket this retightening did not help while at plant. For repairs we performed the following.

- All graphite faces were repaired and machined
- Both tubesheets were hot dipped to prevent the graphite from bleeding.
- Unit was assembled with all new gaskets and packing.
- Exchanger hydro-tested ok at 100 psi and was shipped with 20 psi to PCS.

Pictures below show before/after

Picture 1 – 3 – Blown gasket on fixed end.



Picture 4 & 5 – Gasket face is sheared off.



Picture 6 – Wrapped tubes in unit.



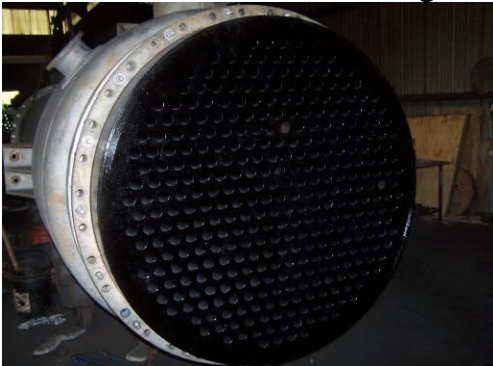
Picture 7 – 11 – Numerous poor repairs to tubesheet



Picture 12 – 15 – Bleeding areas at gasket area found to be cause of the gasket leakages.



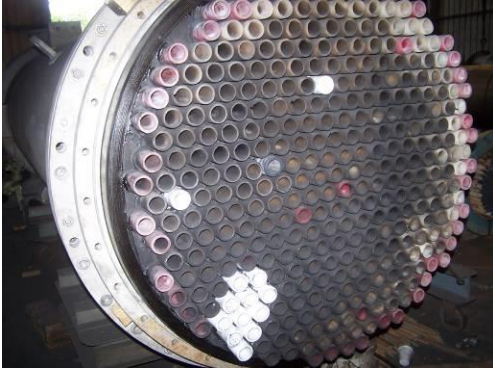
Picture 16 – Tubesheet being coated/repaired.



Picture 17 – No leaks in tubesheet upon testing.



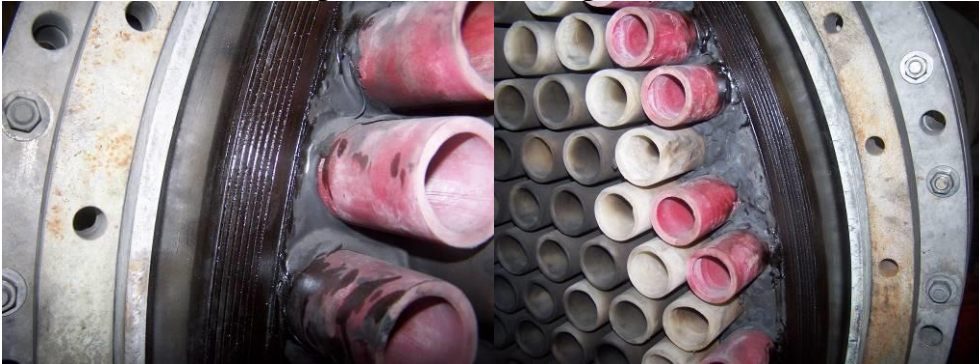
Picture 18 – Repaired floating tubesheet with replaced white inserts.



Picture 19 – Side view of floating tubesheet



Picture 20 & 21 – Repaired/Machined gasket surface.



If there are any questions, please contact me.

Thanks  
Drew Sholar  
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Mersen Gonzales