

PUFFING OSCILLATION & VIBRATION IN BUCKSTAY

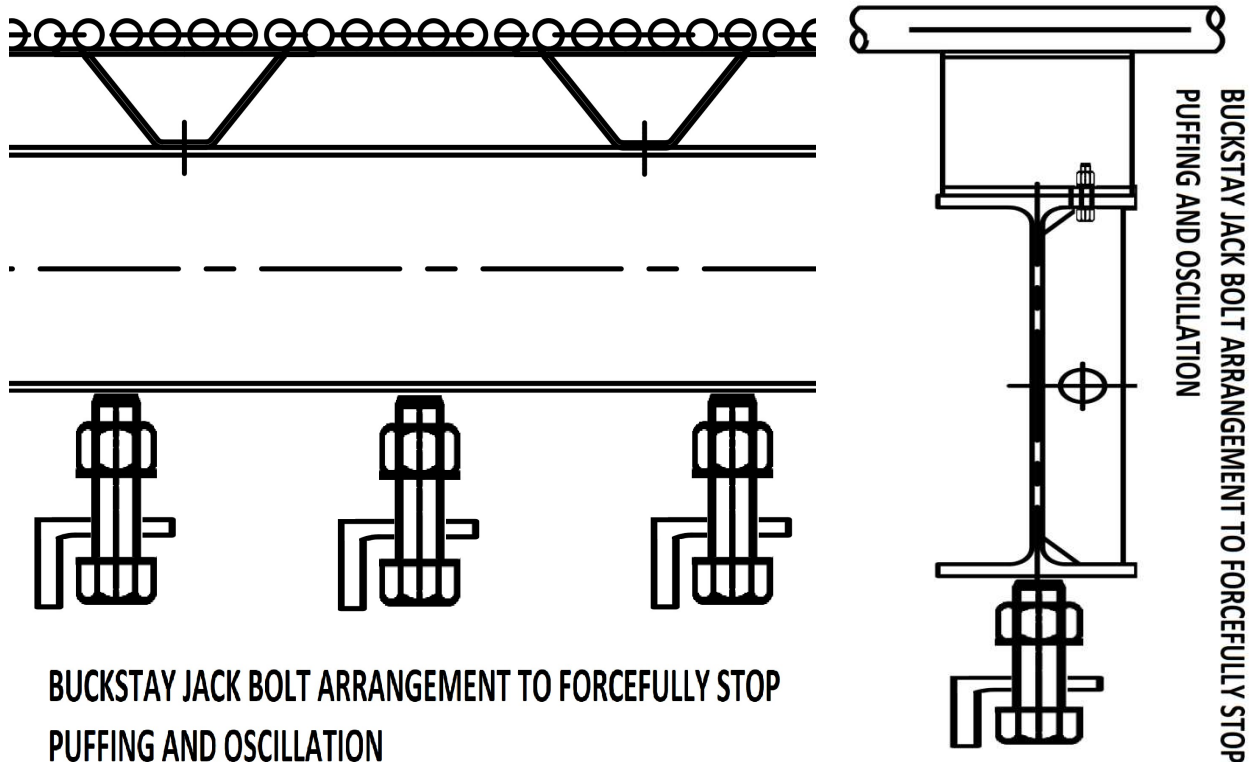
In continuation of our earlier post & video which was posted in May 2023 regarding heavy puffing oscillation & vibration in Buckstay and Front water wall of boiler.

Few months ago, a team tried to rectify the issue of puffing oscillation & vibration in Buckstay and Front water wall.

They forcefully tried to stop the oscillations by putting jack bolts, offset seismic and by reducing necessary gaps at corner link arrangement. This work (for the sake of design correction & modification) looks like a police barricading which is used to forcefully stop uncontrolled crowd.

Finally, they are trying to claim reduction in puffing oscillation at the cost of undue stresses developed on furnace and boiler pressure parts by putting movement restriction by jack bolts. Any restriction in this movement will create a way for major pressure parts failures & distortions in near future.

This type of jack bolts were already installed earlier in many boilers by same team in economizer casing, air pre heater casing, gas outlet duct area. The till date results is puffing, oscillation & vibration including casing bulging and distortion is continue



This type of correction does not follow the basic engineering guidelines for any type i.e. Hot Buckstay OR Cold Buckstay and the provided correction is like eyewash to avoid cost implication and get a new business again.

As we know that, BUCKSTAY is designed for furnace pulsation & gas pressure fluctuation (Positive/Negative) and to control the movement & vibration of furnace water wall panels.

In design phase, buck stay length & spacing, beam sizing, beam strength, wind pressure, natural frequency, seismic loads as per IS 1893 is the main criteria to control movement, pulsation and thermal expansion.



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Regards

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