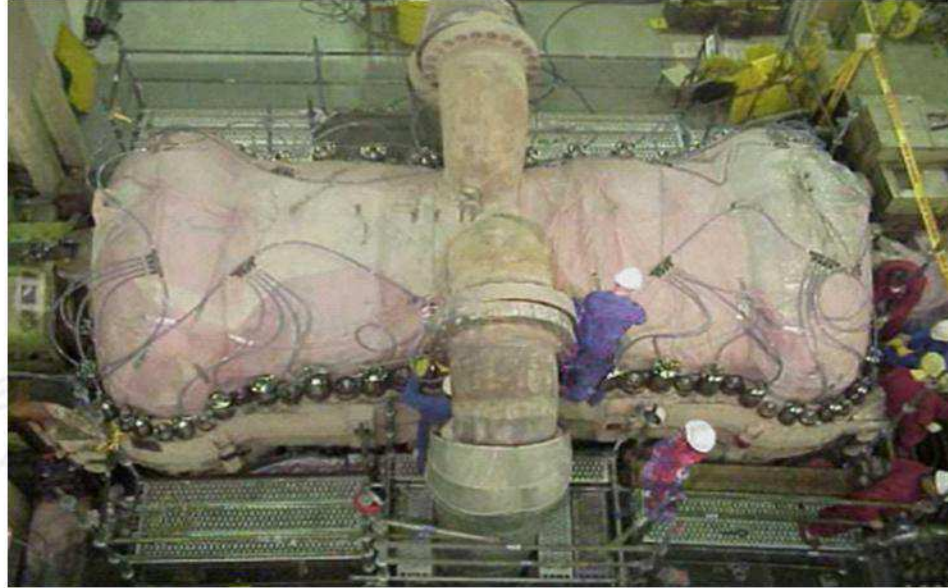


Turbine casing bolting



Technofast Cone Nut Hydraulic Tensioners used to close turbine casing in a fraction of the time taken using bolt heating. (**Less than 5 hrs**)

Existing bolts can be tightened in the cold condition, so can therefore be measured for elongation immediately. This saves hours/shifts or days from a large steam turbine outage.

The picture shows 42 bolts, ranging in size from 4"- 6" being tensioned in one operation. The casing bolts (82 off in this case) are fully tightened in two passes, that is 42 in the first pass and the remaining 40 in the second pass.

This also ensures that all the bolts are evenly

loaded. No heating or cooling time is required as with the traditional bolt heating method, removing safety issues along with the possibility of thread galling due to differential thermal expansion, localized stress concentrations and burnt lubricants. Systems are designed to be turbine specific.

How does it work?

A modification is made to the existing bolt, to accept the taper thread connection of the Technofast Cone Nut Hydraulic Tensioner.

The existing nut is replaced by the patented two piece Technofast Cone Nut. This also serves as a tensioning bridge to allow the hydraulic force to be applied onto the bolt, via the load cell thus stretching the fastener to the required elongation. With the bolt in this condition, the Inner part of the Cone Nut is screwed home



to take up the elongation. The hydraulic pressure is released, leaving the bolts correctly loaded.

Benefits

- *Fast*
- *Accurate*
- *Simple*
- *Safe*
- *No Heating*
- *No Cooling*

Save Days


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