

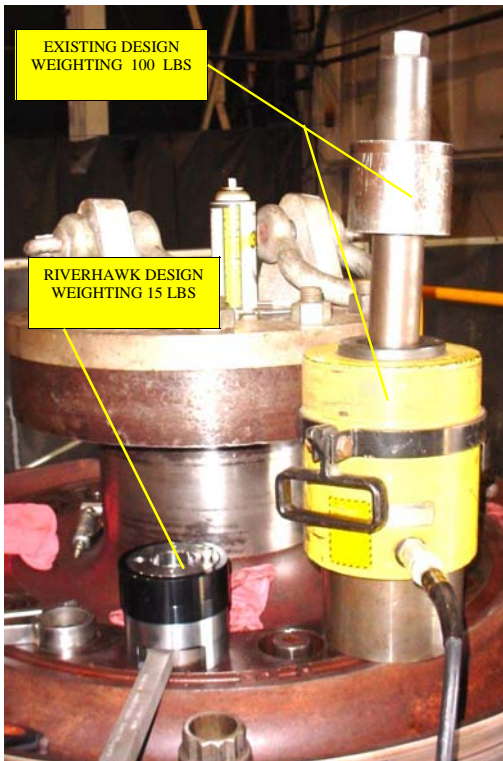
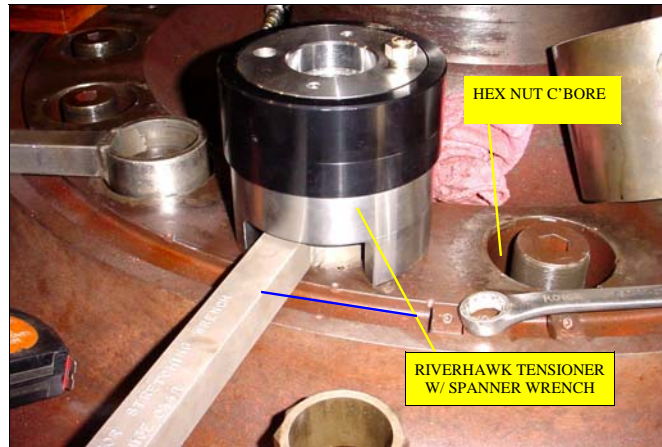
## ...Gas Turbine - Compressor Section Tie Rod Tensioning

- 50% Reduction In Installation Times
- Repeatable, Uniform, Controlled Loading
- Improvement of Balance Integrity
- Shorter Turnarounds
- One Man Operation
- Simultaneous Tensioning Using (4) HET's



### Problem:

Installation of gas turbine compressor wheels utilizing a single heavy and cumbersome load cell in the form of a tensioning tooling. Single tensioning of a (9) foot tie rod was time consuming and often lead to uneven seating of compressor wheels resulting in poor balance integrity. Wheels had to removed and stacking process repeated.



### Solution:

Original equipment replaced with Riverhawk External Tensioning (HET) System. One man operation, using (4) external tensioners simultaneously, reduced installation time by 50%. Uniform, controlled loading insures proper seating of the compressor wheels thus improving balance integrity of the complete assembly. In the event of re-establishing wheel eccentricity, ease of disassembly allowed quick adjustments.

