

Right Angle Gearbox Adaptor helps ease maintenance of BB (Between Bearing) Pump



Application

Flowserve Pump Casing removal of 52 bolts using Norbar EvoTorque®2 and Sliding Reaction Arm.

Solution

Norbar EvoTorque®2 7000 N·m multiplier with Right Angle Gearbox Adaptor & Sliding Reaction Plate

Helping the customer identify an appropriate tool involved various in-depth discussions, finally leading to the purchase of an EvoTorque®2 multiplier with a factory fitted right angle gearbox adaptor. This intelligent tool was provided by our distributor in Ecuador, who supported the end-user throughout the decision-making process. It involved numerous on-site demonstrations to prove that the tool was fit for the intended application. Once the demonstrations had been concluded and trials carried out on the pump assembly the team were nothing less than delighted with the tools performance, easily outperforming their previous method of torque controlled tightening using hydraulic wrenches. The selection criteria included: speed of operation, ease-of-use, safe handling of the tool, a suitable technical specification and of course all commercial considerations.

The combination of an intelligent torque multiplier with a right-angle gearbox adaptor enabled the customer to comfortably access each fastener whilst satisfying all internal H&S requirements. The additional aid of a balancer further improved tool handling, allowing for longer periods of use whilst reducing operator fatigue. The time taken to disassemble the pumps was significantly reduced, helping to increase the volume of work undertaken by the business but, perhaps more importantly it meant they could get equipment back to their customers sooner. Further quality related improvements associated to torque control were also found, which we suspect were reductions in rejected work and/or warranty claims.

The smart functionality of the tool involves data-logging which is where the tool records all work performed on a given job or series of jobs. Aside from the tool offering industry leading torque accuracy it is also capable of producing a report which can be used to satisfy the needs of a quality management system and called upon in cases where evidence might be required to prove a job was done successfully.

The reaction arm is of a sliding design with an apposing socket that locates onto the head of a bolt ensuring no damage is caused to the pump housing. All 52 blind nuts were removed, the necessary servicing carried out and then re-installtion of new blind nuts tightened to 5300 lbf·ft.



Within our family of distributors we share applications and can often recommend solutions that have been tried and tested elsewhere.

