# Module BTTB Bolt Tightening

BTT Bolt Tightening

BTTB (8 h)





**Aim:** The aim of this module is to prepare participants for company specific bolt tightening training, through scenario-based training.

# **PROGRAM: BTTB Basic Technical Training Bolt Tightening**

- 1. Introduction
- 2. Bolt tightening in the wind industry
- 2.1 Limitations of the training
- 2.2 Recap of the BTT Mechanical
- 2.3 Bolt tightening theory
- 2.4 Quality assurance in bolt tightening
- 3. Framing the scenario: Bolt torquing using energy powered tools
- 3.1 Introduction to bolt torquing in the wind industry using energy powered tools and accessories
- 3.2 Attitude requirements for working with energy powered torquing tools and accessories
- 4. Pre-task phase: Planning and preparation
- 4.1 Planning the task
- 4.2 Preparing for the task
- 4.3 Planning for safety
- 5. The task phase: Safely and correctly torque bolts using a combination of electrical and hydraulic tools
  - 5.1 Setting up equipment for use
  - 5.2 Bolt torquing
  - 5.3 Bolt loosening
  - 5.4 Safety, quality and trouble shooting
- 6. Post task phase: Pack up and review
- 6.1 Post-use inspection and packing
- 6.2 Post-job documentation
- 7. Framing the scenario: Bolt tensioning using energy powered tools
- 7.1 Introduction to bolt tensioning in the wind industry using energy powered tools and accessories
- 7.2 Attitude requirements for working with energy powered tensioning tools and accessories
- 8. Pre-task phase: Planning and preparation
- 8.1 Planning the task
- 8.2 Preparing for the task
- 8.3 Planning for safety

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- 9.1 Planning the task
- 9.2 Planning the task
- 9.3 Bolt loosening
- 9.4 Safety, quality and trouble shooting
- 10. Post task phase: Pack up and review
- 10.1 Post-use inspection and packing
- 10.2 Post-job documentation
- 11. Using mechanical handling aids with bolt tightening tasks
- 11.1 Mechanical handling aids typically used in the wind industry
- 11.2 Using mechanical handling aids

- 11.3 Hazards associated with using mechanical handling aids
- 11.4 Mitigating hazards associated with mechanical handling aids
- 12. Training review

### BTTB Module (BTT Bolt Tightening)

**Duration:** 8 hours (1 day)

BTTH Program: Sections 1 to 12

Maximum students: 12 people per Edition.

Prerequisites: BTTM

# **Certificate validity:**

**Permanent** (the company may require re-certification if no hydraulic work is carried out for an extended period of time).

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