

# Fastening of Baseplate Rail Anchors to Concrete Sleeper



## Application

Securely fasten cast baseplate to concrete rail sleeper

## Solution

Norbar PneuTorque® PTS-52-500  
Pneumatic torque multiplier

**Overview:** This particular base plate is designed for installation on concrete sleepers for non-ballasted tracks and areas where a reduction in ground-borne noise and vibration is required. The light grey coloured elastic pad is situated between the concrete sleeper and base plate and provides dampening qualities to reduce vibration transfer. By varying the level of compression on the spring, rubber insulating washer, base plate and elastic pad, different vibration characteristics can be realised. To achieve the desired stiffness and tune the base plate for a specific axle load, a precise torque value must be accurately applied to each fastener.

**Solution:** Norbar successfully demonstrated the capability of the pneumatically powered PTS™ multiplier and performed a series of tightening operations with great efficiency. The compression springs were pre-tensioned during installation ensuring the necessary movement of the base plate. The results demonstrated that the washers, elastic pad and concrete sleeper were compressed with no unexpected deformation or cracking taking place. The reaction system used for the tool was a combination of a splined adaptor and straight reaction foot, with forces being directed against the adjacent fastener.



Norbar PneuTorque® PTS-52-500 multiplier with Lubro Control Unit



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

