

Load testing now available from SEW Service Centre in Mackay

SEW-EURODRIVE is excited to announce that load testing for gearboxes and complete drive assemblies is now available from its new state-of-the-art Service Centre in Mackay.

Believing that load testing a gearbox and/or drive will ensure that potential problems are identified before the unit goes back into service, SEW-EURODRIVE has implemented a state-of-the-art system to load test up to 500 kW power and up to 600,000 Nm torque.

Spin test or partial load test up to 1.5 MW is also available. In addition to load testing the gearbox, in most cases SEW-EURODRIVE are able to load test the entire gearbox, motor and swing-base assembly. This can be done as a shaft mounted assembly, which closely replicates site mounting.

According to Daniel Dallari, Sales & Operations Manager – Far North Queensland, the load testing facility is a great addition to the new SEW-EURODRIVE Service Centre in Mackay. “SEW’s load testing capability is the first of its kind in QLD,” Daniel said. “Before our load tester was commissioned, other gearbox repairers could only spin test the overhauled gearboxes and any potential problem would only be revealed after the unit was back in operation. Not only can we replicate the site load conditions, but also the

shaft mounted arrangement typical of a conveyor application. We can load test the complete drive assemblies including motors up to 6.6kV and replicate deflection of the swingbase under actual loaded conditions.”

SEW-EURODRIVE collaborated with CNC Design – a Melbourne based company on the state-of-the-art load testing system.

CNC Design has extensive experience in GEARTest load testers for both industrial and wind turbine gear units in Australia and USA.

GEARTest is a back-to-back setup to test the gearbox up to 100% full load with minimum energy consumption. The drive motor is connected to the gearbox undergoing the test. The output shaft of this gearbox is in turn connected to a special purpose SEW-EURODRIVE speed matching test gearbox unit itself driving another motor acting as a generator.

The test rig is controlled by an Advanced Motion Control System, so the load cases and test sequences are flexible and can be adjusted to the specific test plan for each gearbox.



This is setup and monitored via a user-friendly operation station. Additionally, the specific software for sound and vibration measuring is integrated in the solution as required.

SEW-EURODRIVE are able to conduct a number of tests to determine the condition of the gearbox during the load testing phase. The load test will load the bearings and gearing, avoiding gear mesh backlash that affects vibration analysis, ensuring FFT readings will identify any potential bearing, gear, or shaft defect. Loaded gear tooth patterns will detect potential misalignment, including misalignment caused by load, speed or temperature. A test protocol will be provided for each performed test and will remain both with the gearbox documentation and also stored electronically for evaluation later on. Load testing allows measuring noise and checking compliance with noise requirements.

SEW-EURODRIVE also guarantees that all gear replacements will be manufactured with state-of-the-art gear technology.

A benefit of completing this load test from the new Service Centre in Mackay will be that maintenance and service personnel will now be able to visit the facility to witness the load testing phase.

The 2000sqm Service Centre will allow SEW-EURODRIVE to better support gear drive customers in Mackay and surrounding region with their drive technology requirements.



Company background:

The SEW-EURODRIVE group is a global designer and developer of mechanical power transmission systems and motor control electronics, headquartered in Bruchsal, Germany. Its broad spectrum of integrated solutions includes geared motors and gear units, high torque industrial gear units, high-efficiency motors, electronic frequency inverters and servo drive systems, decentralised drive systems, plus engineered solutions and after-sales technical support/training.

The Australian division of SEW-EURODRIVE is headquartered in Melbourne and is supported by a network of technical offices in Sydney, Brisbane, Mackay, Townsville, Adelaide and Perth. A comprehensive service and technical support centre is located in Melbourne, and is complemented by production, service and assembly facilities in all mainland states. SEW-EURODRIVE offers a full 24 hour emergency breakdown service on its products to put customer's minds at ease. SEW-EURODRIVE can also tailor a training program to equip customers' with a comprehensive set of skills to get the most out of motor and drive technologies and applications. The company's customer base includes large-scale corporations and smaller entrepreneurial enterprises across Australia.

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