CSAs’ axle rig can be used for the performance, efficiency and durability testing of axles, transmissions and differentials. The motive power is provided by an electric motor and multi-speed gearbox providing full speed and torque control. A test axle is installed between two slave gearboxes that connect to the axle output shafts; the output power transmitted by the axle is then absorbed by an eddy current dynamometer attached to the slave gearboxes. Finally, slave gearboxes are connected together to maintain a constant speed from each axle drive shaft.

**Typical Applications**

- Efficiency measurement
- Lubrication studies
- Speed & torque characteristic
- Temperature surveys
- Durability running to fixed cycle, block programme or RLD (Road Load Data)

**Specification**

- Drive: 250kW AC Machine (up to 3,000 rpm and 800Nm Primary Torque)
- 9-Speed slave gearbox for a wide range of axle input speeds and torques
- Axle output torque up to 30,000Nm per side
- Interchangeable ratio for wheel station reduction boxes of 5.55 or 21.65
- Control: Speed / Torque Steady State or Real Time
- High Accuracy (0.01% FSD) GIF torque transducers on the input and both outputs for efficiency measurements
- 700 kW EC Dynamometer for high torque reaction at low output speeds