



TILT RIG

Description

The CSA Group Leyland tilt rig is a high load capacity test frame which can achieve single axis or compound tilt angles to extreme limits (pitch and roll). Generally used as a light run rig for engine testing, it is also possible to mount a dynamometer on the rig to allow loaded testing. An electric motor is also available to provide a drive to the test sample, for example a gearbox or transaxle. On-site rig design and build, means that bespoke fixtures can be made to support more than just engine and transmission test samples. CSA Group has also used the tilt rig for highly effective testing on marine based equipment.

Typical Applications

- Off road & marine engine & driveline development
- Angle vs oil pressure surveys
- Breather limitation and development
- Loaded engine and compound angle testing
- Oil aeration
- Transmission lubrication monitoring
- Sump and pick up design validation

Specification

- Remote hydraulic tilt actuation with live CCTV video feed of the rig
- Test sample preparation to include fitting of observation windows
- Electric drive for transmissions or axle tests
- Instrumentation and data logging for objective measurements
- Precision torque cell for transmission unloaded efficiency mapping
- Hi speed / standard digital video
- Variable speed drive sequence
- Maximum pitch angle: +/- 53°
- Maximum roll angle: +/- 40° (up to 45° with mechanical adjustment)
- Inner table dimensions: 1.1m x 3m
- Outer table dimensions: 3.2m x 2.2m