Customized Test System for Tachometers

APPLICATION
Magtrol designed this test system for testing the torque and speed measuring function of aircraft tachometers.

COMPONENTS
- Portable Rackmount Case
- TMB 304 In-Line Torque Transducer
- 3400 Torque Display
- 3400 Software
- Three BSD 965 Miniature Couplings
- Custom Tachometer Fixture
- Servo Motor
- Servomotor Control Card
- Test Bench Cover (not shown in photo)

DESCRIPTION
The test bench is comprised of a TMB 304 Torque Transducer and a custom fixture for the tachometer and corresponding inertia wheel. A servo motor is incorporated to provide speed to the tachometer. The entire drive train is conveniently mounted on a base plate with the appropriate couplings, bearing support and flywheel.

All of the system’s electronics are housed inside a portable rackmount case. A servomotor control card powers and drives the motor, regulating speeds from 0 rpm to 6000 rpm in both CW and CCW directions. The 3400 Torque Display records the tachometer’s torque and speed readings via the included data acquisition software, verifying the proper functioning of the tachometer under test.