FEV Transmission Test Bench

Among the biggest challenges at power train development is increasing the degree of efficiency and reliability of transmissions. In this case different kinds of transmissions are able to be tested. Such include automatic and manual transmissions, as well as rear axle transmissions. Durability tests and performance testing spur their development on.

In order to enhance efficiency and drivability compared to existing transmissions, adjustment and optimization of switch and axle transmission

With its new transmission test bench FEV completes the optimization process of power trains, which includes everything from concept layout to test bench optimization and validation, by an additional tool. The flexible test bench construction makes all common commercial transmission test cycles possible.

FEV’s transmission test bench is based on a 3-E-machine principle, at which an asynchronous machine is used as drive- and two additional asynchronous machines are used as wheel dynos.

Transmission test bench main specifications:
- Input torque: 900Nm to 4000 1/min
- Input power: 380kW
- Output torque: 2x 4800Nm to 600 1/min, 2x 1250Nm to 2500 1/min
- Output power: 2x 315kW
- Dyno control: FEV- TOM
- Automatization system: FEV- TCM

The test bench can be used for durability tests as well as performance testing for front wheel drive and rear wheel drive transmissions.
- Manual transmissions (AMT)
- Automatic transmissions (AT, DCT, IVT)

Following tests are possible:
- Instantaneous endurance test with few switching operations at constant rotational speed and torque.
- Dynamic endurance test with power shifts
- Efficiency tests
- Performance tests
- Operation in curves

Your advantages of a FEV transmission test bench at your test field:
- Transmission test for each kind of transmission
- State of the art testing equipment
- Covering the full range of entirely manual to entirely automated tests.
- Less setup time due to modular design.

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