Brake System Development

We provide experienced brake development support for passenger vehicles, heavy goods vehicles and defence applications.

Facilities / Location

UK

- Proving Ground
  - Straight Line Wet Grip
  - High Speed Circuit
  - Test Hills
  - Wet Handling Circuit
  - Dry Handling Circuit
  - Wading Troughs
  - Ride & Handling Surface
  - Off-road Tracks
  - Contamination features (stones, mud, salt, water)
- Fully equipped workshop with engineering team, drivers and technicians
- Machine shop

Spain (Mojácar)

- Fully equipped workshop with engineering team, drivers and technicians
  - Over 850m^2 floor area
  - 3 car lifts and tyre changer and balancer up to 24"
  - 50kW EV fast charger (CCS2 and CHAdeMO)
  - 2 x Type2 EV charger 22kW and 3 x 7.2kW
  - Office and meeting room area
  - Red plates insurance
  - Milling machine for friction machining

Services

Development

- Brake NVH
- Hot environment mileage accumulation
- Specific tests tailored to customer needs
- Brake pedal feel characterisation and tuning
- Judder investigations supported by DTV measurements
- Subjective and objective assessment

Types of Projects

- Test support (driver and technician)
- Full project management
- Supplier management
- Turn-key work packages investigations
- Single tests
- Research and development

Homologation

- UN ECE R13H & R13
- UN ECE R64
- UN ECE R11
- UN ECE R139
- FMVSS 135 & 121
- Chinese Standard GB 21670
- Conformity of production

Equipment

Full suite of sensors for brake system characterisation:

- Performance
  - GPS
  - Thermal couple:
    - Hot shoe rubbing K-type
    - Embedded
    - Fluid
  - Pressure transducer
  - Load cell
  - String and linear potentiometer
- Noise, Vibration & Harshness (NVH)
  - Microphone
  - Corner accelerometers
  - Modal hammer
  - 6-point run out measurement and calculated disc thickness variation

Brake robot with programmed test routines

High sample rate data loggers for NVH performance testing

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