

## Strain Gauges and Checks

X01	Measuring equipment and calibration of dynamometric wheelsets to measure friction forces transmitted through wheel-track contact, torque, braking.	UNI 10478 1-2-3-4-5
X02	Measuring equipment and calibration of rails to measure friction forces transmitted through wheel-track contact, torque, braking.	
X03	Structural Measurements on Rolling Stock Components	
X04	Measuring equipment and calibration of various mechanical components to measure forces, strains/stresses.	
X05	Measuring equipment and calibration (if any) of rail infrastructure subsystems.	

## Static Tests

PSt 01	Wheel Weighing Test	EN50215
PSt 02	Test to verify safety against derailment when running on twisted tracks: Bench Test for Twisted Tracks and Body-Bogie Rotation Test	Method 3 EN14363:2005
PSt 03	Test to verify safety against derailment when running on twisted tracks – Bench test for twisted tracks and test on instrumented flat curve	Method 2 EN14363
PSt 04	Bench Test to measure suspension coefficient	EN14363
PSt 05	Bench test to measure the body-bogie rotation coefficient	EN14363
Pst 06	Measurement of wheel and rail profiles with equivalent conicity calculation	UIC 519

## Dynamic Tests

PDin 01	Dynamic test of running, normal method	EN14363, UIC518
	Dynamic test of running, simplified accelerometer-based method	EN14363, UIC518
	On-track test to measure suspension coefficient	EN14363
PDin 02	Test of accelerometer-based monitoring	EN14363
PDin 03	Ride comfort tests	EN12229
PDin 04	Measurement of track geometry	EN13484-RFI TCAR ST AR 01 001 C
Pdin 05	Measurement of rail profiles with line equivalent conicity calculation	EN13484 – UIC 519



## Measurement of vibrations

MV 01	Measurement of vibrations on in-service components	
MV 02	Measurement of vibrations for safety at work (whole body and hand-arm vibrations)	Legislative Decree 81 – UNI ISO 2631 – UNI ISO 5349

## Temperature measurement

MT 01	Tests for temperature measurement	
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## Aerodynamic tests

PA 01	Aerodynamic loads of the train in the open air	EN14067
PA 02	Aerodynamic loads on track workers at the lineside	§ 4.2.6.2.1 STI RS HS
PA 03	Aerodynamic loads on passengers waiting at platforms	§ 4.2.6.2.2 STI RS HS
PA 04	Pressure loads in the open air	§ 4.2.6.2.3 STI RS HS – EN14067
PA 05	Maximum pressure variations in tunnel	§ 4.2.6.4 STI RS HS – EN14067
PA 06	Comfort as against pressure variations in tunnel	EN14067