

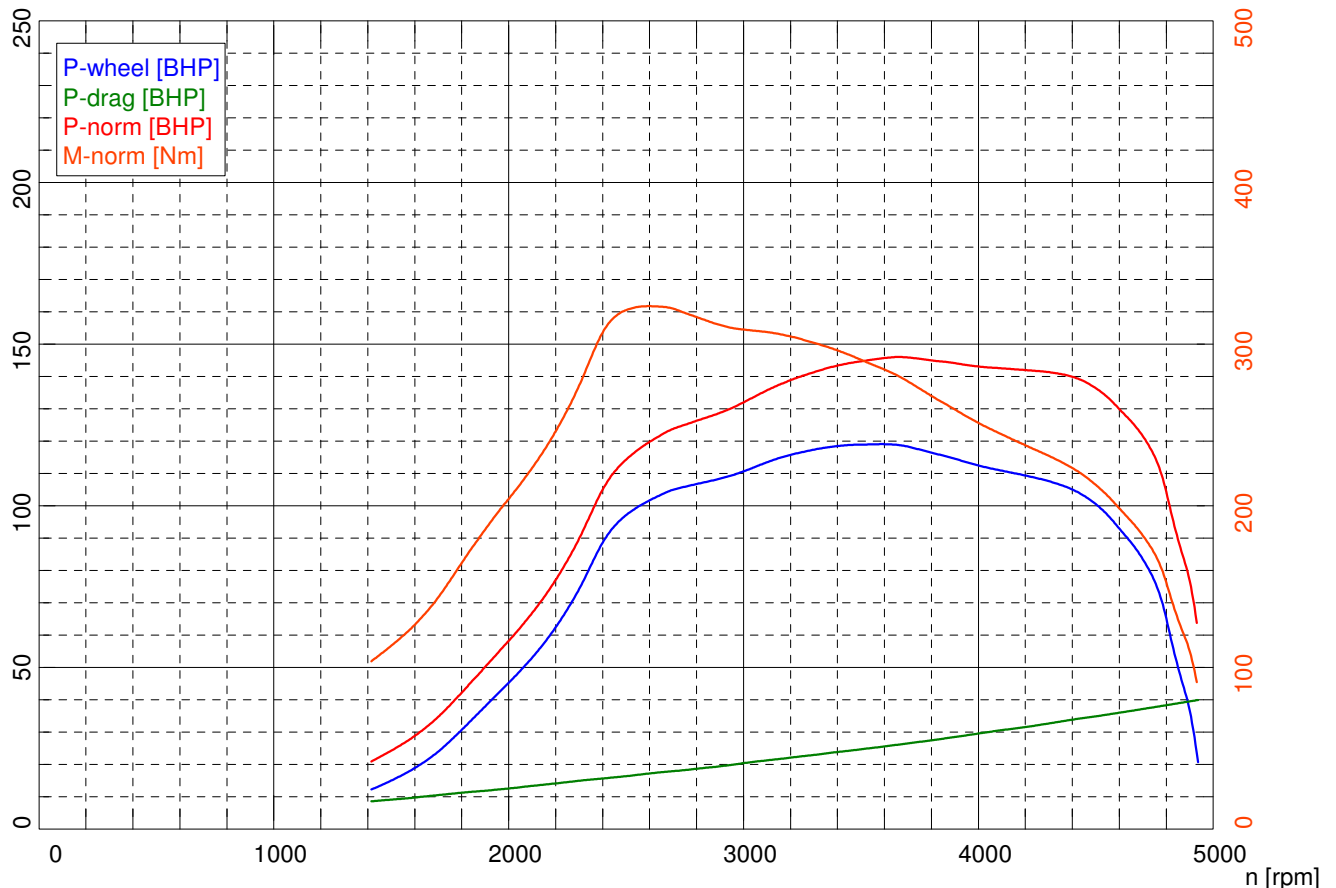
Vehicle type: Opel Zafira 2.2DTI  
 License plate: CA4254XH  
 Inspector: Nikolay Nikolov

Diesel-Motor / Turbo charger (air-cooled)  
 Manual transmission

Chip Tuning/EGR Removal

Measurement date: 03.10.2015 (14:02)

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**Power data**

Corrected power 1)	$P_{Norm}$	145.9 BHP / 107.3 kW
Engine power	$P_{Eng}$	144.8 BHP / 106.5 kW
Wheel power	$P_{Wheel}$	118.6 BHP / 87.2 kW
Drag power	$P_{Drag}$	26.1 BHP / 19.2 kW
Max. power at		3665 rpm / 119.9 km/h
Torque 1)	$M_{Norm}$	323.3 Nm
Max. Torque at		2600 rpm / 84.9 km/h
Max. attained RPM		4935 rpm / 161.3 km/h

1) Correction acc. to DIN 70020  
 Correction factors:  $Q_v = 0.00 \%$

**Ambient data**

Ambient temperature	$T_{Ambient}$	22.7 °C
Intake air temperature	$T_{Intake\ air}$	21.1 °C
Relative humidity	$H_{Air}$	56.2 %
Air pressure	$p_{Air}$	1003.7 hPa
Steam pressure	$p_{Steam}$	15.5 hPa
Oil temperature	$T_{Oil}$	---- °C
Fuel temperature	$T_{Fuel}$	---- °C

**Slip**

Speed no load	$V_{no\ load}$	---- km/h
RPM no load	$n_{no\ load}$	---- rpm
Speed full load	$V_{full\ load}$	---- km/h
RPM full load	$n_{full\ load}$	---- rpm
Slip		---- %

**Rotating mass**

Average delay run down 1	$a_1$	---- m/s <sup>2</sup>
Average Brake force run down 1	$F_1$	---- N
Average delay run down 2	$a_2$	---- m/s <sup>2</sup>
Average brake force run down 2	$F_2$	---- N
Force of the rotating mass	$F_{rot-total}$	---- N
Rotating total mass	$m_{rot-total}$	310.0 kg
Rotating test stand mass	$m_{rot-dyno}$	250.0 kg
Rotating vehicle mass	$m_{rot-vehicle}$	60.0 kg