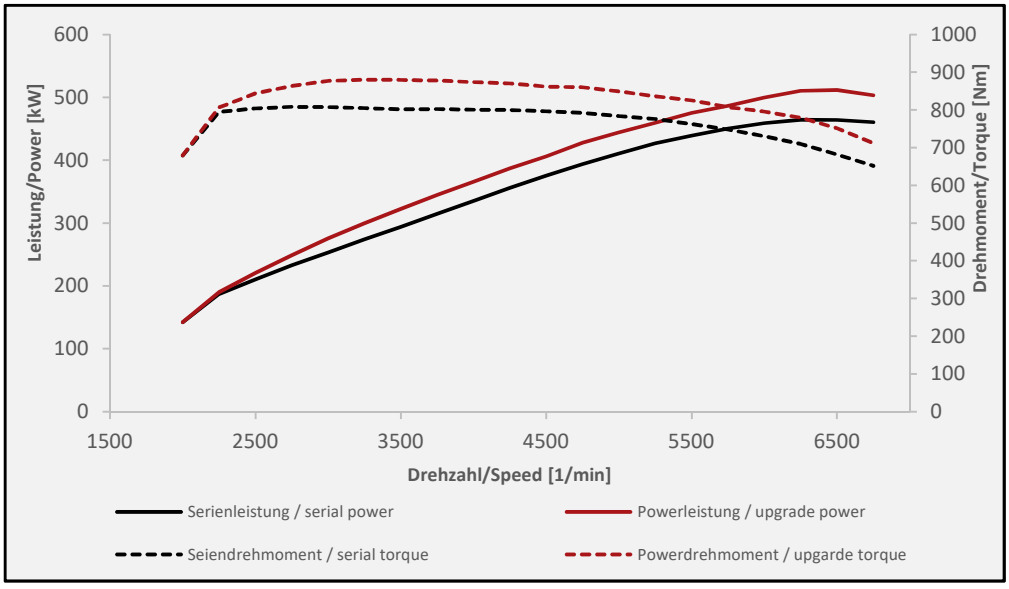
Data sheet ABT Power

04.02.2020

Engine type code	**DHUB**
Emission class:	**Euro 6DG; WLTP**
Constructiv change:	ABT Engine Control
Fuel	ROZ 98
	(please note the fuel information on page 3)

Technical Data:

	Base	ABTgrade	
Displacement:	3996	3996	ccm
Power*:	441	515	kW
	600	700	BHP
at engine speed:	6000	6280-6400	1/min
Torque:	800	880	Nm
at engine speed:	2200-4500	3100-4500	1/min
speed limit*/**:	305	305	km/h
acceleration 0-100 km/h*:	serial	-0,3	sec.
CO_2 Factor*/***:		1,00	- - -



* The specified values may vary due to differences in body shape, equipment, drive train and wheels.

** Ensure sufficient speed release of the tires

*** CO_2 new = CO_2 Factor x CO_2 Serial

To determine the CO2 emissions, the specified factor must be multiplicate the CO2 data from the COC paper (no. 49) or under V.7 of the registration certificate

ABT Sportsline GmbH
Johann-Abt-Straße 2
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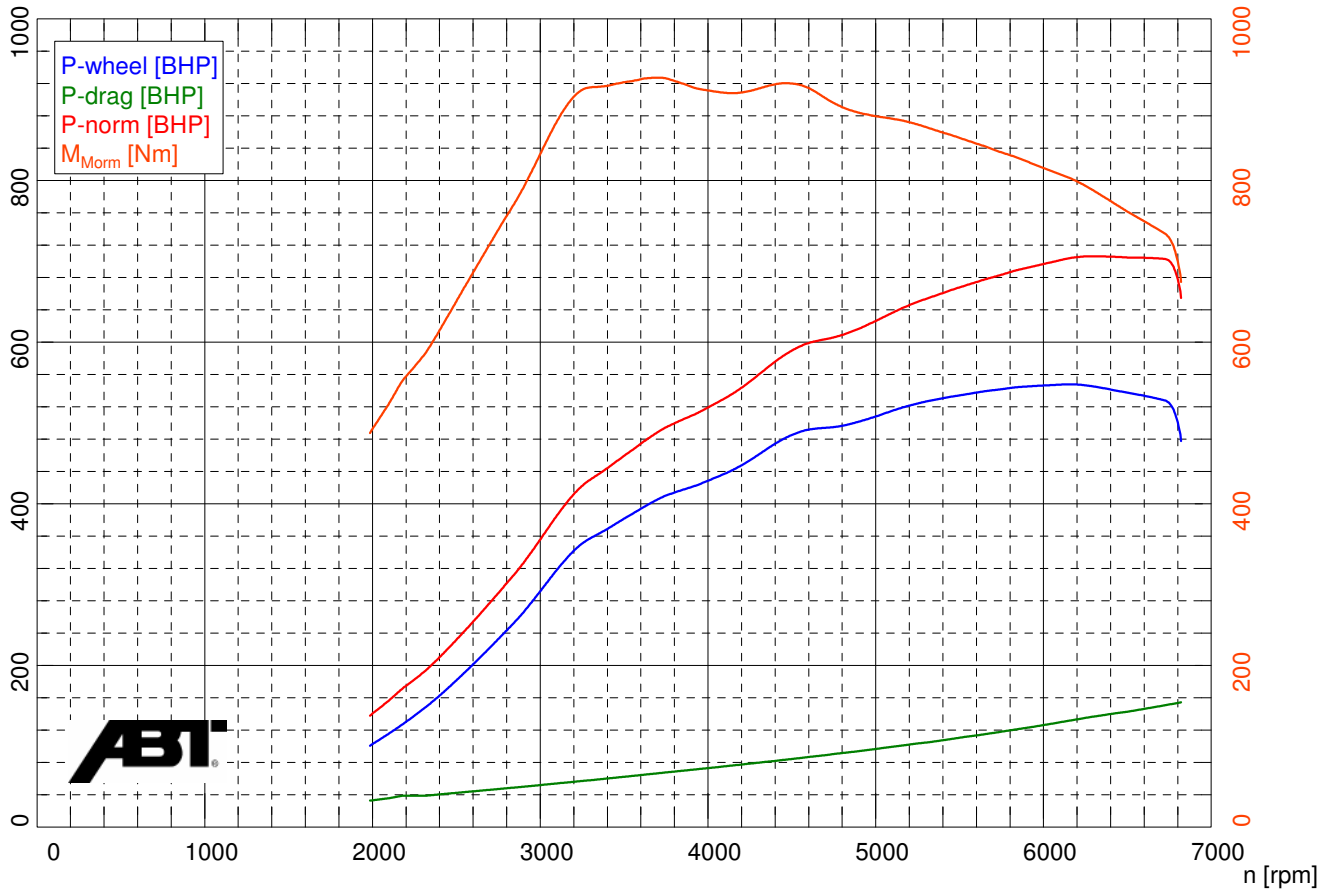
MSR

Vehicle type: RSQ8 DHUB Power 700 5G
License plate:
Inspector: Fabian

Otto-Motor / Turbo charger (air-cooled)
Manual transmission
4 wheel drive

LM 2
3045 KM

Measurement date: 13.01.2020 (10:58)



Power data

Corrected power 1)	P_{Norm}	705,8	BHP /	519,1	kW
Engine power	P_{Eng}	681,2	BHP /	501,0	kW
Wheel power	P_{Wheel}	545,2	BHP /	401,0	kW
Drag power	P_{Drag}	136,0	BHP /	100,1	kW
Max. power at		6285	rpm /	213,5	km/h
Torque 1)	M_{Morm}	926,7	Nm		
Max. Torque at		3700	rpm /	125,8	km/h
Max. attained RPM		6820	rpm /	231,8	km/h

1) Correction acc. to EWG 80/1269
Correction factors: Q_V = 0,00 %

Ambient data

Ambient temperature	$T_{Ambient}$	8,0	°C
Intake air temperature	$T_{Intake\ air}$	6,9	°C
Relative humidity	H_{Air}	49,3	%
Air pressure	p_{Air}	936,8	hPa
Steam pressure	p_{Steam}	5,3	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 (Manual input)		1,00	%

Rotating mass

$a_{1\text{-}FA}$	---,---	m/s²	$a_{1\text{-}RA}$	---,---	m/s²
$F_{1\text{-}FA}$	-----,-	N	$F_{1\text{-}RA}$	-----,-	N
$a_{2\text{-}FA}$	---,---	m/s²	$a_{2\text{-}RA}$	---,---	m/s²
$F_{2\text{-}FA}$	-----,-	N	$F_{2\text{-}RA}$	-----,-	N
$F_{rot\text{-}total\ \text{-}FA}$	-----,-	N	$F_{rot\text{-}total\ \text{-}RA}$	-----,-	N
$m_{rot\text{-}total\text{-}FA}$	794,0	kg	$m_{rot\text{-}total\text{-}RA}$	793,0	kg
$m_{rot\text{-}dyno\text{-}FA}$	714,0	kg	$m_{rot\text{-}dyno\text{-}RA}$	713,0	kg
$m_{rot\text{-}vehicle\text{-}FA}$	80,0	kg	$m_{rot\text{-}vehicle\text{-}RA}$	80,0	kg

Technical Definitions

General:

The fuel used must conform to the approved specifications (Sheet 1).
The use of fuel of a lesser grade than specified will lead to reduced performance levels.
Large differences between specifications (e.g. ROZ102 to ROZ95) can cause damage to the engine. If high-grade fuel is not available, only 75% of the travel of the vehicle's accelerator pedal (standard level) may be utilised.

For optimum engine output power, the vehicle's control units (engine, gearbox, suspension etc.) must be in faultless working order.

Power Measurement:

Reliable power data can be determined only after the engine or drive train has been 'run-in'. After 3,000 km, a vehicle can be considered as 'run-in'.

The corrected power of the engine is conveyed, i.e. the power transferred from the engine to the flywheel.

Wheel power is generally measured on a performance dynamometer (Sheet 2, diagram and text field in blue), i.e. the power transferred onto the road by the wheels.
This power appears lower than the corrected power, because power losses come into effect via transmission, drive shafts, differentials and wheels/tyres. These power losses are determined on the dynamometer via the so-called drag power (Sheet 2, diagram and text field in blue).

Corrected power (Sheet 2, diagram and text field in red) is calculated from the determined values as follows:

$$Corrected\ power = (wheel\ power + drag\ power)\ \times standard\ correction$$

The standard correction factor is calculated from the supplied environmental data in accordance with standards (EWG, DIN or ISO).

The torque (Sheet 2, diagram and text field in orange) is calculated from the corrected power using the following formula:

$$Torque\ [Nm] = \frac{\text{Power [kW]} \times 9550}{\text{revolutions } [\frac{1}{\text{min}}]}$$

Detailed information regarding the procedure for power measurement can be found in the ABT procedural instructions for power measurement.