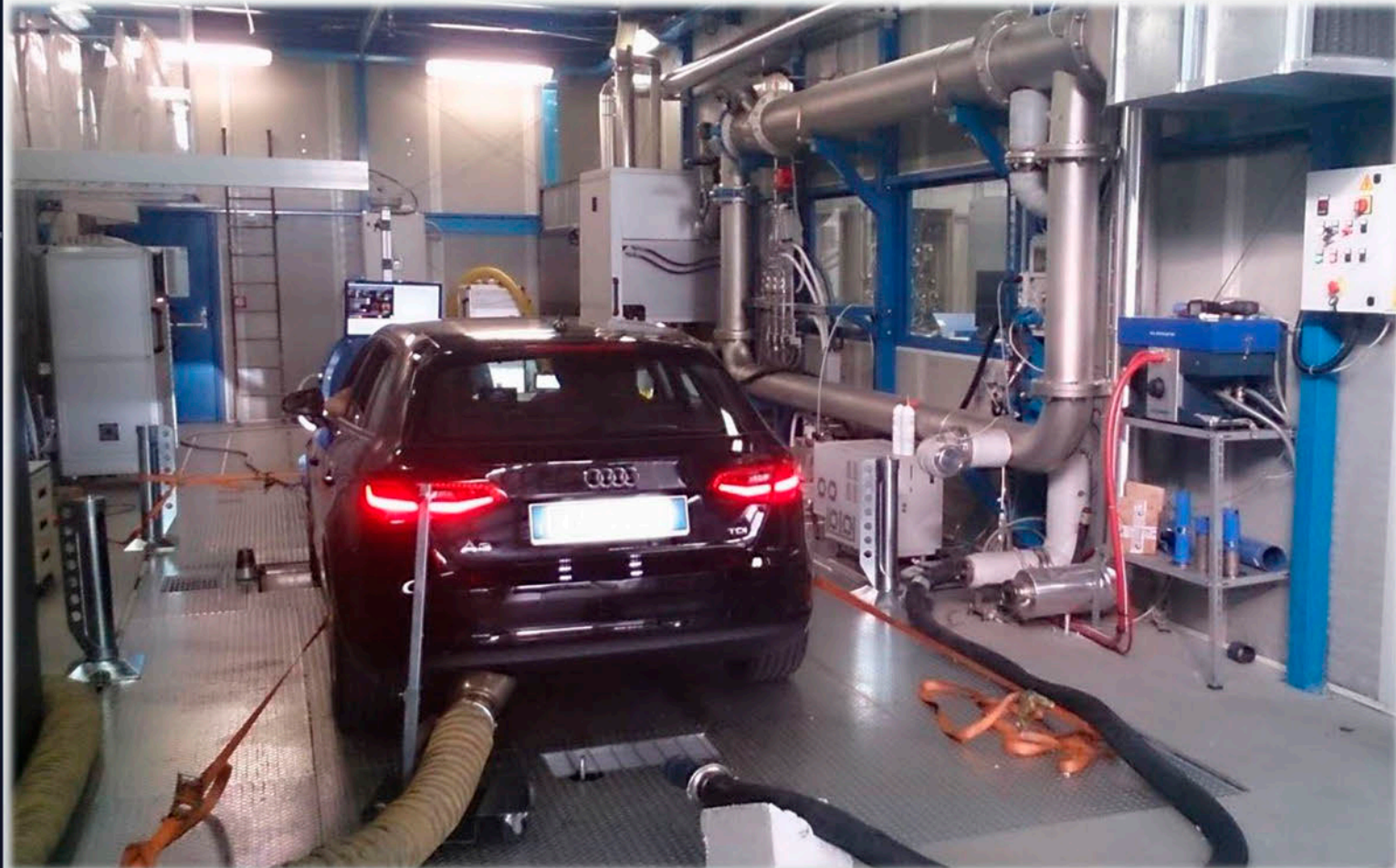


Test N°6 - AUDI A3 1600 TDI





CONTROL SISTEM S.r.l.

via Cuneo n.7, 10044 Pianezza (TO) Italy

CYCLE DATA

Cycle number:	4368	Date:	11/03/2014
Performed cycle:	POWER CURVE	Job number:	CS 037/14
Operator:	Borsello	Customer:	I/O ENERGIES
Driver:	Vendemiat		

CYCLE DATA

Cycle number:	4401	Date:	15/03/2014
Performed cycle:	POWER CURVE	Job number:	CS 037/14
Operator:	Pellegrino	Customer:	I/O ENERGIES
Driver:	Vendemiat		

INSTRUMENTATION

Chassis-dyno:	Dynosaur 2WD compact 002 year 2012
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INSTRUMENTATION

Chassis-dyno:	Dynosaur 2WD compact 002 year 2012
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VEHICLE

Manufacturer:	Audi	Inertia [Kg]:	1260
Model:	A3	Roll/wheel resistance at 20km/h [N]:	105
Code:	EV214FJ	Roll/wheel resistance at 40km/h [N]:	114
Chassis number:		Roll/wheel resistance at 60km/h [N]:	120
Engine:	1.6	Roll/wheel resistance at 80km/h [N]:	120
Transmission:	Manuale	Roll/wheel resistance at 100km/h [N]:	127
Traction:	Anteriore	Roll/wheel resistance at 120km/h [N]:	132
Fuel:	Diesel	Wheel diameter [mm]:	600
Tyres pressure [bar]:	3	Total transmission ratio:	3.770
Kilometers [km]:	2836	Total transmission efficiency [%]:	90.0

VEHICLE

Manufacturer:	Audi	Inertia [Kg]:	1260
Model:	A3	Roll/wheel resistance at 20km/h [N]:	105
Code:	EV214FJ	Roll/wheel resistance at 40km/h [N]:	114
Chassis number:		Roll/wheel resistance at 60km/h [N]:	120
Engine:	1.6	Roll/wheel resistance at 80km/h [N]:	120
Transmission:	Manuale	Roll/wheel resistance at 100km/h [N]:	127
Traction:	Anteriore	Roll/wheel resistance at 120km/h [N]:	132
Fuel:	Diesel	Wheel diameter [mm]:	600
Tyres pressure [bar]:	3	Total transmission ratio:	4.524
Kilometers [km]:	3658	Total transmission efficiency [%]:	90.0

AMBIENT DATA

Ambient temperature [°C]:	23.5		
Barometric pressure [mbar]:	988		
Relative humidity [%]:	43.2		
Absolute humidity [g/kg]:	7.96		
Pd dry [kPa]:	2.890		

AMBIENT DATA

Ambient temperature [°C]:	24.5		
Barometric pressure [mbar]:	983		
Relative humidity [%]:	42.0		
Absolute humidity [g/kg]:	8.27		
Pd dry [kPa]:	3.074		

RESULTS

Step	Wheel speed [km/h]	Engine speed [rpm]	Roll/wheel F [N]	Force at roll [N]	Torque [Nm]	Power [kW]
1	27.40	1095.8	108.6	1749.00	136.9	15.7
2	30.36	1214.4	109.5	2122.25	164.4	20.9
3	35.28	1411.0	111.0	3198.30	243.8	36.0
4	40.29	1611.4	112.5	3288.50	250.6	42.3
5	45.36	1814.2	114.0	3262.10	248.8	47.3
6	50.31	2012.4	115.4	3287.85	250.7	52.8
7	55.39	2215.5	116.8	3307.00	252.3	58.5
8	60.42	2416.7	118.1	3301.75	252.0	63.8
9	65.48	2619.3	119.4	3280.44	250.5	68.7
10	70.33	2813.1	120.7	3229.70	246.9	72.7
11	75.46	3018.5	121.9	3111.95	238.3	75.3
12	80.34	3213.7	123.1	2928.15	224.8	75.7
13	85.36	3414.3	124.3	2726.55	210.1	75.1
14	90.43	3617.1	125.4	2534.00	195.9	74.2
15	95.32	3812.9	126.5	2389.90	185.4	74.0
16	100.43	4017.3	127.5	2267.05	176.4	74.2
17	105.38	4215.1	128.6	2134.70	166.8	73.6
18	110.38	4415.3	129.5	2000.45	156.9	72.6
19	115.35	4614.1	130.5	1838.85	145.1	70.1
20	120.42	4816.9	131.4	1615.70	128.7	64.9
21						
22						
23						
24						
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27						
28						
29						
30						
31						

RESULTS

Step	Wheel speed [km/h]	Engine speed [rpm]	Roll/wheel F [N]	Force at roll [N]	Torque [Nm]	Power [kW]
1	27.25	1090.0	108.6	-271.52	-12.0	-1.4
2	30.34	1213.6	109.5	2000.71	155.5	19.8
3	35.25	1410.0	111.0	3113.76	237.6	35.1
4	40.23	1609.2	112.5	3360.95	255.9	43.1
5	45.38	1815.2	114.0	3337.71	254.3	48.3
6	50.34	2013.6	115.4	3337.76	254.4	53.7
7	55.27	2210.9	116.7	3336.80	254.5	58.9
8	60.37	2414.9	118.1	3329.66	254.0	64.2
9	65.33	2613.3	119.4	3308.90	252.6	69.1
10	70.22	2808.9	120.6	3266.38	249.6	73.4
11	75.41	3016.5	121.9	3152.61	241.3	76.2
12	80.40	3216.1	123.1	2989.47	229.3	77.2
13	85.40	3416.1	124.3	2803.00	215.7	77.2
14	90.44	3617.7	125.4	2627.09	202.8	76.8
15	95.46	3818.5	126.5	2491.93	192.9	77.1
16	100.44	4017.7	127.6	2376.23	184.5	77.6
17	105.40	4216.1	128.6	2223.33	173.3	76.5
18	110.45	4418.1	129.6	2060.47	161.4	74.7
19	115.45	4618.1	130.5	1923.95	151.4	73.2
20	120.39	4815.7	131.4	1660.47	132.0	66.6
21						
22						
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NOTES: Gear used during test: 3rd

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TESTING RESPONSIBLE: [CUSTOMER]

TESTING RESPONSIBLE: [CUSTOMER]

Test results for Audi A3 1600 TDI

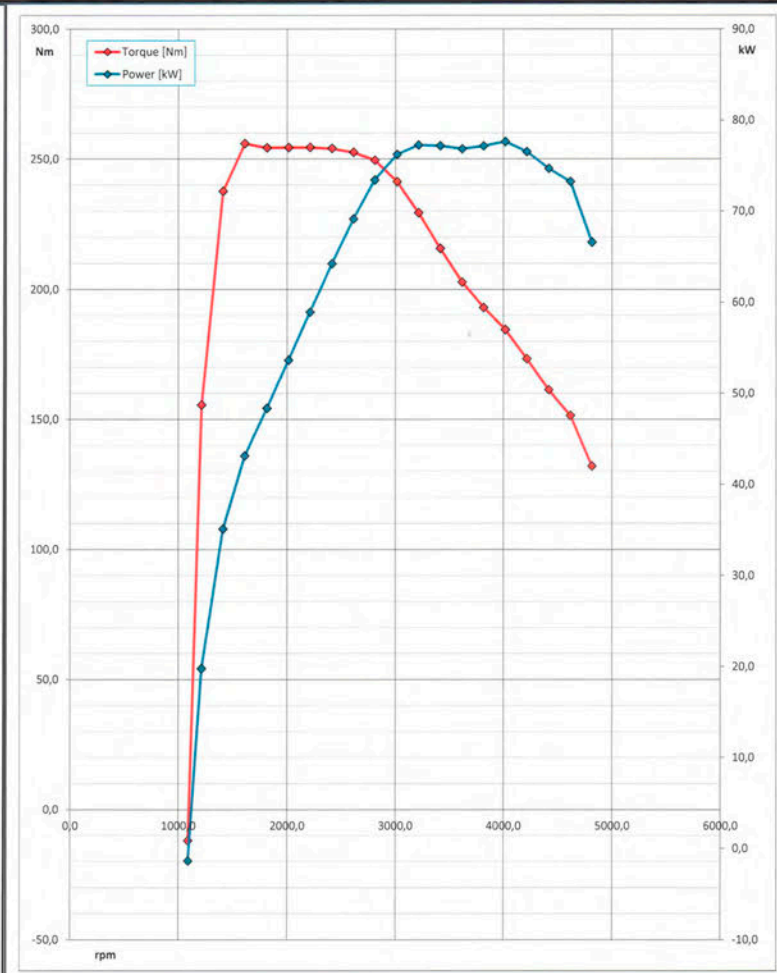
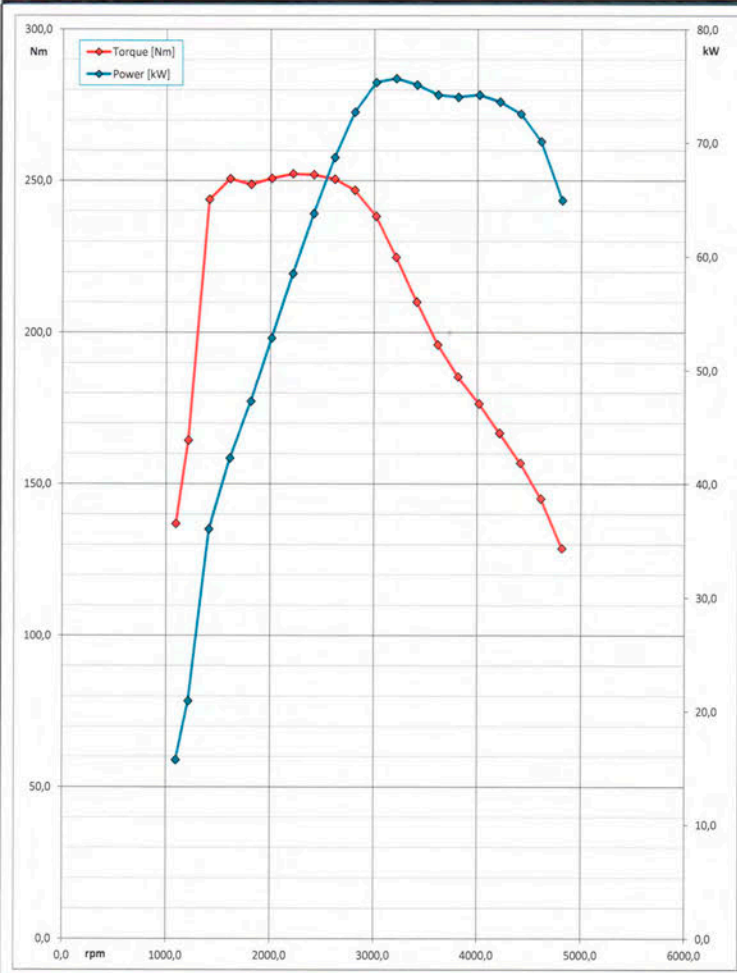
Power Improvement:
Engine power +3%





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NOTES
TESTING RESPONSIBLE: [CUSTOMER]

NOTES
TESTING RESPONSIBLE: [CUSTOMER]

Test results for Audi A3 1600 TDI

Power Improvement - Graphics:
Engine power +3%

