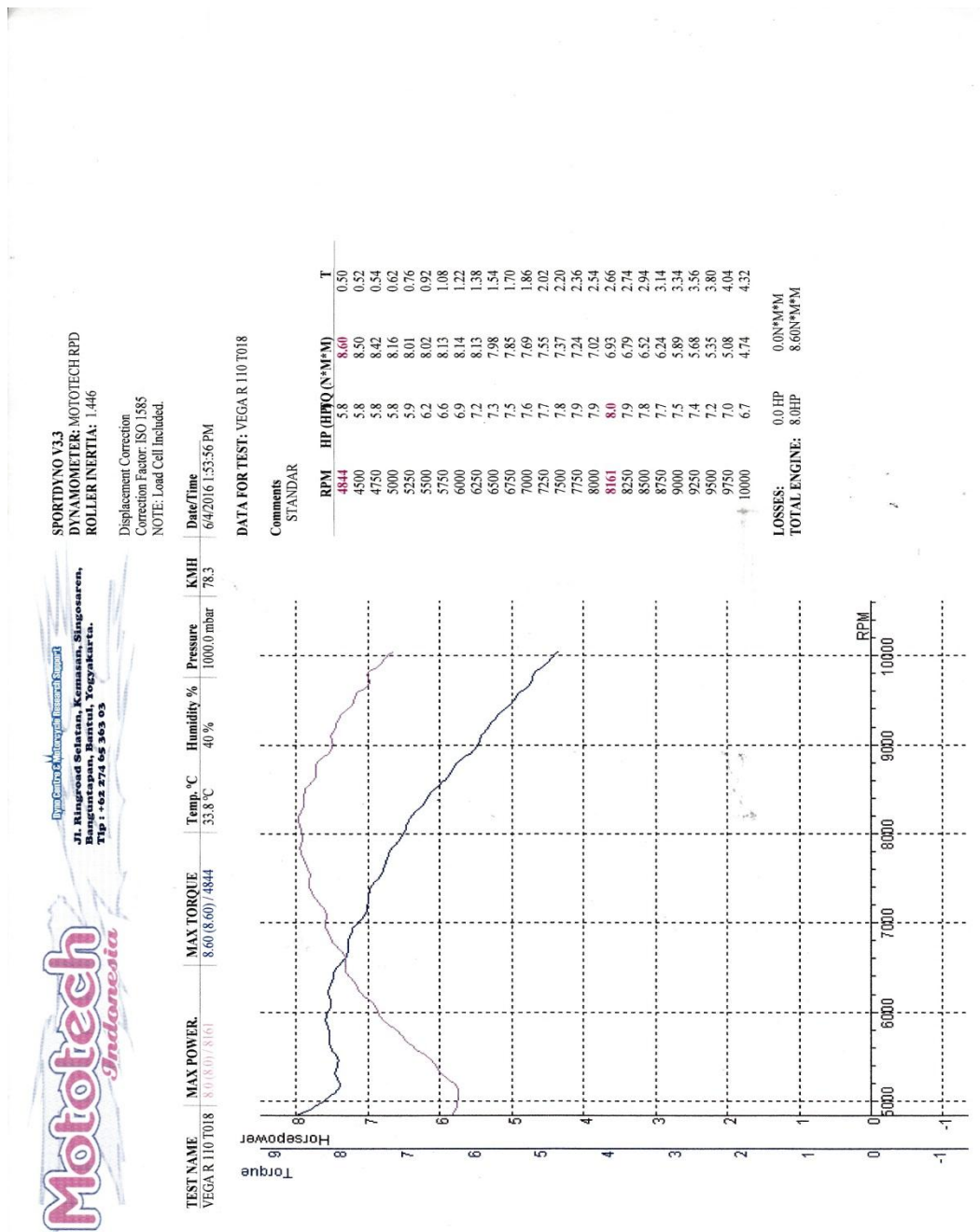


Lampiran 1

TABEL KARAKTERISTIK CAMSHAFT				
SUDUT	STANDARD		AFTER MARKET	
	IN	EX	IN	EX
-280				0
-270				0
-260				0
-250		0		0.07
-240		0.01		0.1
-230		0.04		0.3
-220		0.09		0.6
-210		0.2		1
-200		0.5		1.7
-190		1		2.5
-180		1.7		3.2
-170		2.4		4.1
-160		3.1		4.8
-150		3.7		5.5
-140		4.3		6
-130		4.8		6.4
-120		5.3		6.8
-110		5.6		6.9
-100		5.8		7
-90		5.9		7
-80		6		6.9
-70		5.7	0	6.6
-60		5.4	0	6.3
-50	0	4.9	0.05	5.9
-40	0	4.4	0.1	5.3
-30	0.1	3.9	0.3	4.7
-20	0.7	3.2	0.7	4
-10	1.3	2.5	1.3	3.2
0	1.9	1.7	2	2.4
10	2.6	1	2.7	1.7
20	3.3	0.5	3.5	1
30	3.9	0.2	4.2	0.4

40	4.5	0.09	4.9	0.2
50	4.9	0.04	5.5	0.1
60	5.3	0.01	6	0
70	5.6	0	6.3	0
80	5.8		6.6	
90	6		6.7	
100	5.8		6.9	
110	5.7		6.8	
120	5.4		6.4	
130	5.1		6.3	
140	4.6		5.9	
150	4.1		5.4	
160	3.4		4.8	
170	2.8		4.2	
180	2		3.5	
190	1.3		2.7	
200	0.7		1.8	
210	0.3		1.1	
220	0.1		0.6	
230	0.06		0.2	
240	0.03		0.05	
250	0.01		0	
260	0		0	
270	0			
280	0			

Lampiran 2



Lampiran 3

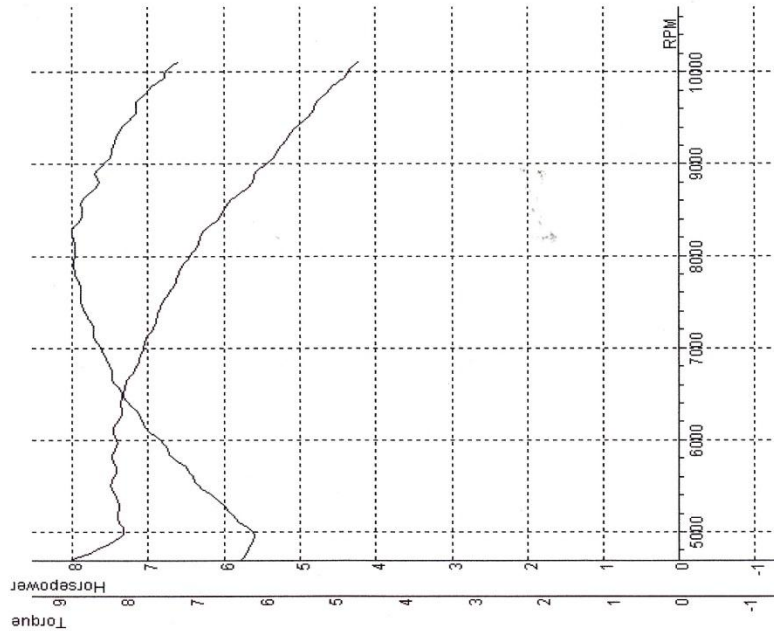


SPORTIVO V3.3
DYNAMOMETER: MOTOTECH RPD
ROLLER INERTIA: 1.46

Displacement Correction
Correction Factor: ISO 1585
NOTE: Load Cell Included.

TEST NAME | MAX POWER | MAX TORQUE | Temp. °C | Humidity % | Pressure | KM/H
VEGA R 110 T019 | 8.0 (8.0) / 8239 | 8.78 (8.78) / 4696 | 33.8 °C | 40 % | 1000.0 mbar | 78.9

DATA FOR TEST: VEGA R 110 T019



Comments
STANDAR

RPM	HP (HP/Q)	(N°M/PM)	T
4006	5.8	8.78	0.50
4250	5.7	8.67	0.52
4500	5.7	8.57	0.54
4750	5.7	8.49	0.56
5000	5.6	8.02	0.70
5250	6.0	8.09	0.86
5500	6.3	8.21	1.00
5750	6.6	8.17	1.16
6000	6.9	8.14	1.32
6250	7.1	8.07	1.46
6500	7.3	8.03	1.62
6750	7.5	7.86	1.78
7000	7.6	7.73	1.94
7250	7.7	7.55	2.12
7500	7.9	7.46	2.28
7750	7.9	7.25	2.46
8000	8.0	7.07	2.62
8239	8.0	6.89	2.80
8250	8.0	6.87	2.82
8500	7.9	6.55	3.02
8750	7.7	6.19	3.22
9000	7.5	5.92	3.44
9250	7.4	5.69	3.64
9500	7.2	5.36	3.88
9750	7.0	5.09	4.14
10000	6.8	4.77	4.40

LOSSES: 0.0 HP
TOTAL ENGINE: 8.0HP
0.0N°M/PM
8.78N°M/PM

Lampiran 4



SPORTDYNO V3.3
 DYNAMOMETER: MOTOTECH RPD
 ROLLER INERTIA: 1.446

Displacement Correction
 Correction Factor: ISO 1585
 NOTE: Load Cell Included.

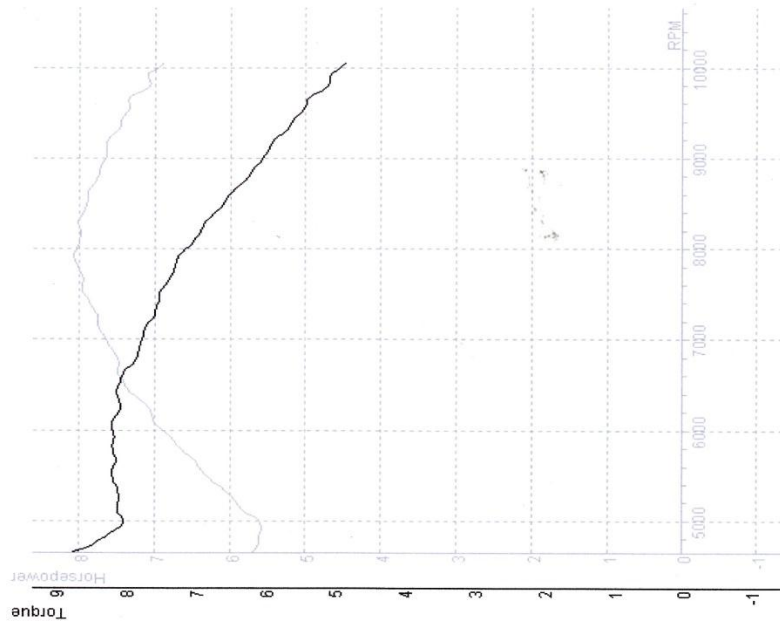
TEST NAME: VEGA R 110 T020
 MAX POWER: 8.75 (8.75) / 4656
 MAX TORQUE: 8.75 (8.75) / 4656
 Temp. °C: 33.8 °C
 Humidity %: 40 %
 Pressure: 1000.0 mbar
 KMH: 78.6
 Date/Time: 6/4/2016 1:54:19 PM

DATA FOR TEST: VEGA R 110 T020

Comments
 STANDAR

RPM	HP (HP)	HP (N*M*MM)	T
4656	8.75	5.7	0.50
4250	8.62	5.7	0.52
4500	8.52	5.6	0.54
4750	8.39	5.6	0.58
5000	8.01	5.6	0.72
5250	8.08	6.0	0.88
5500	8.19	6.3	1.04
5750	8.18	6.6	1.20
6000	8.18	6.9	1.34
6250	8.06	7.1	1.50
6500	8.08	7.4	1.64
6750	7.86	7.5	1.80
7000	7.76	7.6	1.96
7250	7.8	7.8	2.14
7500	7.9	7.9	2.30
7750	8.0	8.0	2.48
7909	8.1	8.1	2.58
8000	8.0	8.0	2.66
8250	8.0	8.0	2.84
8500	7.9	7.9	3.04
8750	7.8	7.8	3.24
9000	7.6	7.6	3.44
9250	7.5	7.5	3.66
9500	7.4	7.4	3.88
9750	7.1	7.1	4.14
10000	6.9	6.9	4.40

LOSSES: 0.0 HP
 TOTAL ENGINE: 8.1 HP
 0.0 N*M*MM
 8.75 N*M*MM



Lampiran 5



Jl. Ringroad Selatan, Kemasan, Singosaren,
 Banguntapan, Bantul, Yogyakarta.
 Tlp : +62 274 64 363 03

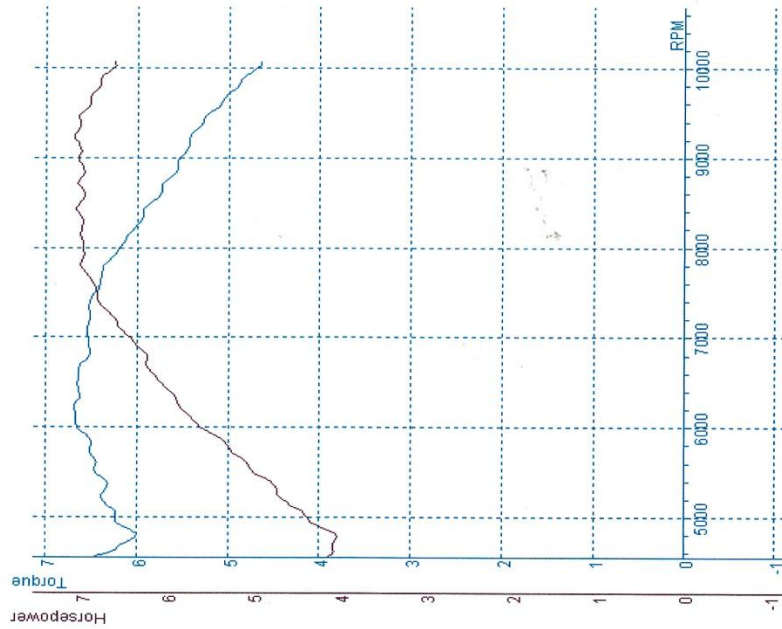
SPORTDYNO V3.3
 DYNAMOMETER: MOTOCHRPD
 ROLLER INERTIA: 1.446

Displacement Correction
 Correction Factor: ISO 1585
 NOTE: Load Cell Included.

TEST NAME | MAX POWER. | MAX TORQUE | Temp. °C | Humidity % | Pressure | KMH
 VEGA R 110 T009 | 71 (7.1)/9223 | 6.69 (6.69)/6210 | 33.3 °C | 45 % | 1000.0 mbar | 78.5

DATE FOR TEST: VEGA R 110 T009

Comments
 FAIL0



RPM	HP (HPQ(N*M*M))	T
4250	4.1	6.34
4500	4.1	6.28
4750	4.0	6.01
5000	4.4	6.23
5250	4.7	6.37
5500	5.0	6.46
5750	5.3	6.51
6000	5.7	6.67
6210	5.9	6.69
6250	5.9	6.66
6500	6.1	6.65
6750	6.2	6.53
7000	6.5	6.53
7250	6.7	6.51
7500	6.8	6.45
7750	7.0	6.38
8000	7.0	6.18
8250	7.0	5.98
8500	7.0	5.82
8750	7.0	5.65
9000	7.0	5.52
9223	7.1	5.44
9250	7.1	5.40
9500	7.0	5.19
9750	6.8	4.95
10000	6.6	4.67

LOSSES: 0.0N*M*M
 TOTAL ENGINE: 7.1HP
 6.69N*M*M

Lampiran 6



Jl. Ringroad Selatan, Kemaman, Singaperbangsa, Bantolan, Yogyakarta.
 Telp : +62 274 65 363 03

SPORT/DNO V3.3
 DYNAMOMETER: MOTOTECHRPD
 ROLLER INERTIA: 1.446

Displacement Correction
 Correction Factor: ISO 1585
 NOTE: Load Cell Included.

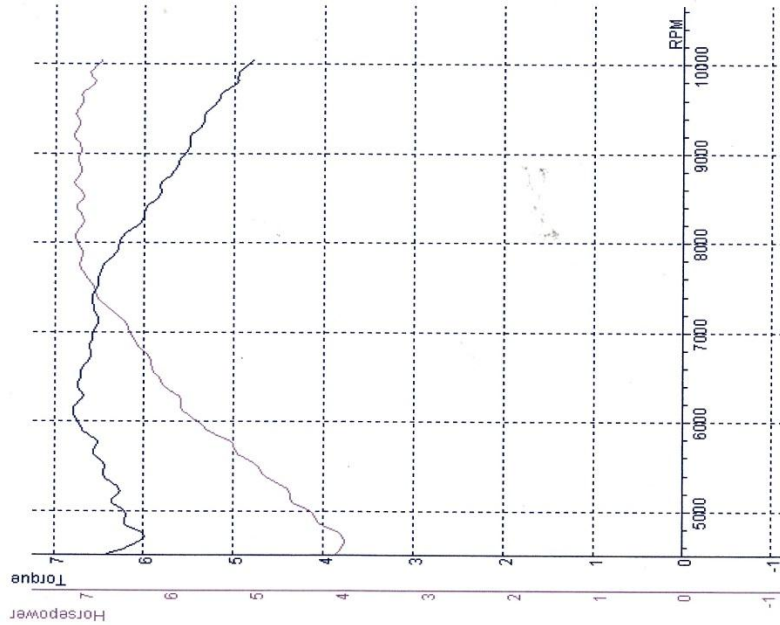
TEST NAME | MAX POWER | MAX TORQUE | Temp. °C | Humidity % | Pressure | KMH
 VEGA R 110 T010 | 7117.1/995 | 6.79 (6.79) / 6106 | 33.3 °C | 45 % | 1000.0 mbar | 78.3

DATE FOR TEST: VEGA R 110 T010

Comments
 FAITO

RPM	HP (HPQ (N*M*M))	T
4250	4.0	6.32
4500	4.0	6.26
4750	4.0	6.04
5000	4.4	6.25
5250	4.7	6.30
5500	5.0	6.44
5750	5.3	6.51
6000	5.7	6.75
6106	5.8	6.79
6250	5.9	6.68
6500	6.1	6.71
6750	6.3	6.60
7000	6.5	6.87
7250	6.7	6.56
7500	6.9	6.52
7750	7.1	6.44
8000	7.1	6.27
8250	7.0	6.02
8500	7.0	5.84
8750	7.1	5.71
9000	7.1	5.54
9195	7.1	5.49
9250	7.1	5.42
9500	7.1	5.25
9750	6.9	5.01
10000	6.8	4.81

LOSSES: 0.0N*M*M
 TOTAL ENGINE: 7.1HP
 6.79N*M*M



Lampiran 7



SPORTDYNO V3.3
DYNAMOMETER: MOTO TECH RPD
ROLLER INERTIA: 1.446

Displacement Correction
Correction Factor: ISO 1585
NOTE: Load Cell included.

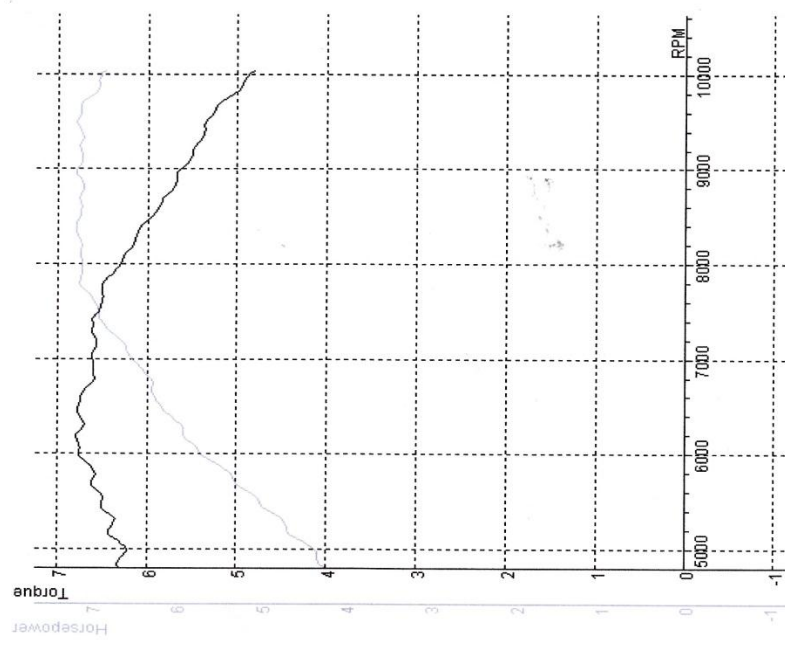
TEST NAME: VEGA R 110 T012
MAX POWER: 6.80 (6.80) / 6158
Temp. °C: 33.3 °C
Humidity %: 45 %
Pressure: 1000.0 mbar
KMH: 78.5
Date/Time: 6/4/2016 1:24:02 PM

DATA FOR TEST: VEGA R 110 T012

Comments
FAITO

RPM	HP (HPQ) (N*M/M)	T
4500	4.3	6.32
4750	4.3	6.32
5000	4.4	6.22
5250	4.7	6.37
5500	5.0	6.49
5750	5.3	6.58
6000	5.7	6.75
6158	5.9	6.80
6250	5.9	6.71
6500	6.2	6.75
6750	6.3	6.60
7000	6.5	6.62
7250	6.8	6.60
7500	6.9	6.52
7750	7.1	6.51
8000	7.1	6.28
8250	7.1	6.13
8366	7.2	6.09
8500	7.1	5.94
8750	7.1	5.76
9000	7.1	5.60
9250	7.1	5.45
9500	7.2	5.33
9750	7.0	5.10
10000	6.9	4.87

LOSSES: 0.0 HP
TOTAL ENGINE: 7.2HP
0.0N*M/M
6.80N*M/M



Lampiran 8

EXHAUST GAS ANALYSIS	Serial no. 1711960	STO	Serial no. 1711960	EXHAUST GAS ANALYSIS	Serial no. 1711960	EXHAUST GAS ANALYSIS	Serial no. 1711960
TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004	TECNOTEST TYPE STARGAS 898 OIML CLASS 0 REPORT N 545/OIML/04/RM 10/07/2004
RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]	RPM 0 [1/min]
CO 6.144 [% vol]	CO 8.282 [% vol]	CO 6.990 [% vol]	CO 6.855 [% vol]	CO 4.65 [% vol]	CO 1.134 [%]	CO 1.060 [%]	CO 6.144 [% vol]
CO2 7.05 [% vol]	CO2 7.68 [% vol]	CO2 4.65 [% vol]	CO2 5.67 [% vol]	H2C 492 [ppm vol]	H2C 6.72 [% vol]	H2C 360 [ppm vol]	CO2 7.05 [% vol]
H2C 261 [ppm vol]	H2C 608 [ppm vol]	H2C 492 [ppm vol]	H2C 360 [ppm vol]	O2 6.72 [% vol]	O2 6.72 [% vol]	O2 6.48 [% vol]	H2C 261 [ppm vol]
O2 5.14 [% vol]	O2 2.48 [% vol]	O2 6.72 [% vol]	O2 6.48 [% vol]	N2O [ppm vol]	N2O [ppm vol]	N2O [ppm vol]	O2 5.14 [% vol]
N2O [ppm vol]	N2O [ppm vol]	N2O [ppm vol]	N2O [ppm vol]	CO cor [ppm vol]	CO cor [ppm vol]	CO cor [ppm vol]	N2O [ppm vol]
CO cor 6.984 [% vol]	CO cor 7.82 [% vol]	CO cor 6.990 [% vol]	CO cor 6.855 [% vol]	X 1.134 [%]	X 1.134 [%]	X 1.060 [%]	CO cor 6.984 [% vol]
X 1.026 [%]	X 0.829 [%]	X 1.134 [%]	X 1.060 [%]	TEMP. [°C]	TEMP. [°C]	TEMP. [°C]	X 1.026 [%]
TEMP. [°C]	TEMP. [°C]	TEMP. [°C]	TEMP. [°C]	ENVIRONMENT CONDITIONS	ENVIRONMENT CONDITIONS	ENVIRONMENT CONDITIONS	TEMP. [°C]
ENVIRONMENT CONDITIONS	ENVIRONMENT CONDITIONS	ENVIRONMENT CONDITIONS	ENVIRONMENT CONDITIONS	Temperature 41 [°C]	Temperature 41 [°C]	Temperature 41 [°C]	ENVIRONMENT CONDITIONS
Temperature 41 [°C]	Temperature 41 [°C]	Temperature 41 [°C]	Temperature 41 [°C]	Pressure 985 [hPa]	Pressure 985 [hPa]	Pressure 985 [hPa]	Temperature 41 [°C]
Pressure 985 [hPa]	Pressure 984 [hPa]	Pressure 985 [hPa]	Pressure 985 [hPa]	Rel. Humidity 34 [%RH]	Rel. Humidity 34 [%RH]	Rel. Humidity 34 [%RH]	Pressure 985 [hPa]
Rel. Humidity 34 [%RH]	Rel. Humidity 34 [%RH]	Rel. Humidity 34 [%RH]	Rel. Humidity 34 [%RH]	DATE: 15/03/2016	DATE: 15/03/2016	DATE: 15/03/2016	Rel. Humidity 34 [%RH]
DATE: 15/03/2016	DATE: 15/03/2016	DATE: 15/03/2016	DATE: 15/03/2016	TIME: 12:44	TIME: 12:34	TIME: 12:47	DATE: 15/03/2016
TIME: 12:44	TIME: 12:34	TIME: 12:44	TIME: 12:47	CAR DATA	CAR DATA	CAR DATA	TIME: 12:47
CAR DATA	CAR DATA	CAR DATA	CAR DATA	FUEL: GASOLINE	FUEL: GASOLINE	FUEL: GASOLINE	CAR DATA
FUEL: GASOLINE	FUEL: GASOLINE	FUEL: GASOLINE	FUEL: GASOLINE	BRAND: VMH	BRAND: VMH	BRAND: VMH	FUEL: GASOLINE
BRAND: VMH	BRAND: VMH	BRAND: VMH	BRAND: VMH	MODEL: VEGASTO	MODEL: VEGASTO	MODEL: VEGASTO	BRAND: VMH
MODEL: VEGASTO	MODEL: VEGASTO	MODEL: VEGASTO	MODEL: VEGASTO	TYPE CLASS	TYPE CLASS	TYPE CLASS	MODEL: VEGASTO
TYPE CLASS	TYPE CLASS	TYPE CLASS	TYPE CLASS				TYPE CLASS

Lampiran 9

EXHAUST GAS ANALYSIS	EXHAUST GAS ANALYSIS	EXHAUST GAS ANALYSIS	EXHAUST GAS ANALYSIS
<p>FAITO</p> <p>EXHAUST GAS ANALYSIS</p> <p>Serial nr. 1711960</p> <p>TECNO TEST TYPE STAR GAS 898 OIML CLASS 0 REPORT N. 545/OIML/04/RM 10/07/2004</p>	<p>EXHAUST GAS ANALYSIS</p> <p>Serial nr. 1711960</p> <p>TECNO TEST TYPE STAR GAS 898 OIML CLASS 0 REPORT N. 545/OIML/04/RM 10/07/2004</p>	<p>EXHAUST GAS ANALYSIS</p> <p>Serial nr. 1711960</p> <p>TECNO TEST TYPE STAR GAS 898 OIML CLASS 0 REPORT N. 545/OIML/04/RM 10/07/2004</p>	<p>EXHAUST GAS ANALYSIS</p> <p>Serial nr. 1711960</p> <p>TECNO TEST TYPE STAR GAS 898 OIML CLASS 0 REPORT N. 545/OIML/04/RM 10/07/2004</p>
<p>RPM 0 [1/min]</p> <p>CO 5.747 [% vol]</p> <p>CO2 10.12 [% vol]</p> <p>HC 382 [ppm vol]</p> <p>NO 1.21 [% vol]</p> <p>NO ---- [ppm vol]</p> <p>CO cor 5.747 [% vol]</p> <p>λ 0.867 [-]</p> <p>TEMP. --- [°C]</p>	<p>RPM 0 [1/min]</p> <p>CO 8.616 [% vol]</p> <p>CO2 7.65 [% vol]</p> <p>HC 406 [ppm vol]</p> <p>NO 2.31 [% vol]</p> <p>NO ---- [ppm vol]</p> <p>CO cor 8.616 [% vol]</p> <p>λ 0.820 [-]</p> <p>TEMP. --- [°C]</p>	<p>RPM 0 [1/min]</p> <p>CO 7.979 [% vol]</p> <p>CO2 8.34 [% vol]</p> <p>HC 367 [ppm vol]</p> <p>NO 1.70 [% vol]</p> <p>NO ---- [ppm vol]</p> <p>CO cor 7.979 [% vol]</p> <p>λ 0.819 [-]</p> <p>TEMP. --- [°C]</p>	<p>RPM 0 [1/min]</p> <p>CO 6.758 [% vol]</p> <p>CO2 9.85 [% vol]</p> <p>HC 446 [ppm vol]</p> <p>NO 1.00 [% vol]</p> <p>NO ---- [ppm vol]</p> <p>CO cor 6.758 [% vol]</p> <p>λ 0.832 [-]</p> <p>TEMP. --- [°C]</p>
<p>ENVIRONMENT CONDITIONS</p> <p>Temperature 40 [°C]</p> <p>Pressure 986 [hPa]</p> <p>Rel. Humidity 38 [%RH]</p> <p>DATE: 15/03/2016</p> <p>TIME: 13:19</p> <p>CAR DATA</p> <p>FUEL: GASOLINE</p> <p>BRAND: VMH</p> <p>MODEL: VEGACAMPFAITO</p>	<p>ENVIRONMENT CONDITIONS</p> <p>Temperature 40 [°C]</p> <p>Pressure 985 [hPa]</p> <p>Rel. Humidity 38 [%RH]</p> <p>DATE: 15/03/2016</p> <p>TIME: 13:23</p> <p>CAR DATA</p> <p>FUEL: GASOLINE</p> <p>BRAND: VMH</p> <p>MODEL: VEGACAMPFAITO</p>	<p>ENVIRONMENT CONDITIONS</p> <p>Temperature 40 [°C]</p> <p>Pressure 986 [hPa]</p> <p>Rel. Humidity 38 [%RH]</p> <p>DATE: 15/03/2016</p> <p>TIME: 13:24</p> <p>CAR DATA</p> <p>FUEL: GASOLINE</p> <p>BRAND: VMH</p> <p>MODEL: VEGACAMPFAITO</p>	<p>ENVIRONMENT CONDITIONS</p> <p>Temperature 40 [°C]</p> <p>Pressure 986 [hPa]</p> <p>Rel. Humidity 38 [%RH]</p> <p>DATE: 15/03/2016</p> <p>TIME: 13:27</p> <p>CAR DATA</p> <p>FUEL: GASOLINE</p> <p>BRAND: VMH</p> <p>MODEL: VEGACAMPFAITO</p>