

LAMPIRAN 1

TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM MURNI  
PERCOBAAN PERTAMA

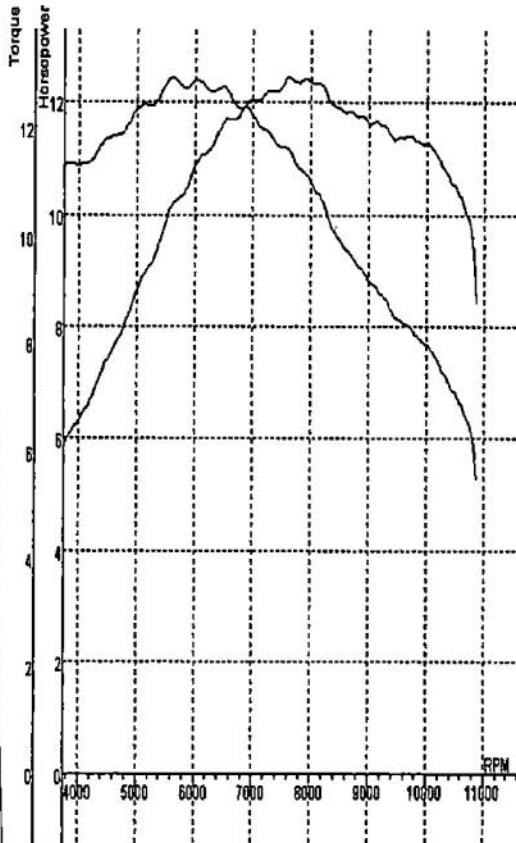


Dyn. Centre & Mototech Research Support  
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Telp: +62 274 822222

SPORIDISO VLS  
DYNAMOMETER: Mototech KPD  
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	Date/Time
MEGAPRO 1600C T007	12.5 (12.5) / 7628	12.96 (12.96) / 7611	29.8 °C	75 %	1000.0 mbar	97.6	2018/02/14 11:03:27 AM



DATA FOR TEST: MEGAPRO 1600C T007

Comments  
CDI STANDAR / PREMIUM

RPM	HP (DIN) (N·M/Min)	T	
3200	6.0	11.34	0.52
3500	6.1	11.34	0.54
3750	6.1	11.34	0.56
4000	6.3	11.32	0.64
4250	6.8	11.44	0.78
4500	7.4	11.81	0.92
4750	7.9	11.93	1.06
5000	8.7	12.40	1.20
5250	9.1	12.43	1.32
5500	9.9	12.81	1.44
5411	10.2	12.96	1.50
5750	10.3	12.78	1.58
6000	10.9	12.91	1.72
6250	11.2	12.70	1.84
6500	11.7	12.76	1.98
6750	11.7	12.39	2.10
7000	12.0	12.17	2.26
7250	12.2	11.96	2.38
7500	12.3	11.65	2.54
7628	12.5	11.60	2.60
7750	12.4	11.31	2.68
8000	12.3	10.93	2.84
8250	12.2	10.47	3.00
8500	11.9	9.87	3.18
8750	11.8	9.50	3.36
9000	11.6	9.13	3.54
9250	11.6	8.87	3.72
9500	11.4	8.47	3.92
9750	11.4	8.25	4.12
10000	11.3	7.97	4.34
10250	10.9	7.52	4.56
10500	10.5	7.08	4.80
-(max)			

LOSSES: 0.0 HP 0.0 N·M/Min  
TOTAL ENGINE: 12.5 HP 12.96 N·M/Min

## LAMPIRAN 2

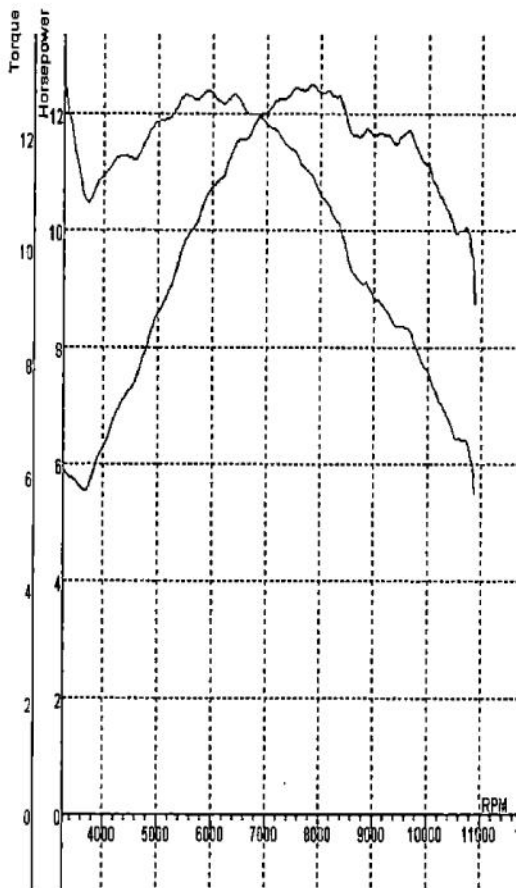
### TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM MURNI PERCOBAAN KE DUA



SPORTRUNO FL3  
DYNAMOMETER: Mototech RFD  
ROLLER INERTIA: 1.446

Displacement Correction  
Correction Factor: 0.01585  
NOTE: Load Cell Included.

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	RPM	Date/Time
MEGAPRO 160CC T08	12.5 (12.5) / 7832	12.94 (12.94) / 5281	29.8 °C	75%	1000.0 mbar	97.7	27/02/2014 11:03:45 AM



DATA FOR TEST: MEGAPRO 160CC T08

Comments  
CDI STANDAR/PREMIUM

RPM	HP (HEW) (N*M*MIN)	T	
3211	5.9	12.94	0.50
3750	5.9	12.70	0.52
3000	5.8	12.69	0.54
3250	5.8	12.27	0.56
3500	5.7	11.64	0.64
3750	5.8	10.92	0.80
4000	6.4	11.35	0.94
4250	7.0	11.66	1.08
4500	7.3	11.62	1.22
4750	7.9	11.50	1.34
5000	8.6	12.28	1.48
5250	9.2	12.43	1.62
5500	9.8	12.25	1.74
5750	10.3	12.71	1.88
6000	10.8	12.28	2.00
6250	11.1	12.65	2.14
6500	11.5	12.59	2.28
6750	11.8	12.43	2.40
7000	12.0	12.21	2.54
7250	12.2	11.59	2.68
7500	12.4	11.74	2.84
7750	12.5	11.39	2.98
8000	12.5	11.33	3.02
8000	12.3	10.92	3.14
8250	12.3	10.53	3.30
8500	11.7	9.73	3.48
8750	11.6	9.41	3.64
9000	11.6	9.13	3.84
9250	11.6	8.89	4.02
9500	11.6	8.66	4.22
9750	11.5	8.30	4.42
10000	11.1	7.83	4.64

LOSSES: 0.0 HP 0.0N\*M\*MIN  
TOTAL ENGINE: 12.5HP 12.94N\*M\*MIN

LAMPIRAN 3

TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM MURNI  
PERCOBAAN KE TIGA



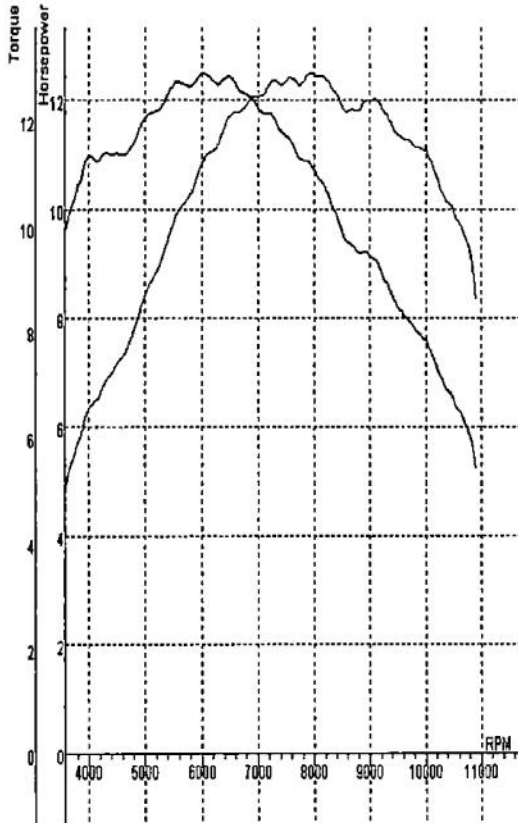
SPOKIDERO V3.3  
DEMANDO SYNER: Mototech KPD  
ROLLER INERTIA: 1446

Deployment Correction  
Correction Factor: ISO 1585  
NOTE: Load Cell Included

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
MEGAPRO 160CC T009	12.5 (12.5) / 7943	12.91 (12.91) / 6046	29.8 °C	75 %	1000.0 mbar	97.9	20/8/2014 11:04:04 AM

DATA FOR TEST: MEGAPRO 160CC T009

Comments  
CDI STANDAR / PREMIUM



RPM	HP (HP) (N·M/M)	T	
3000	5.0	10.02	0.52
3250	5.1	10.15	0.54
3500	5.3	10.28	0.56
3750	5.5	10.53	0.60
4000	6.4	11.34	0.76
4250	6.8	11.36	0.90
4500	7.2	11.38	1.06
4750	7.6	11.51	1.18
5000	8.5	12.07	1.32
5250	9.1	12.28	1.46
5500	9.8	12.71	1.58
5750	10.2	12.65	1.72
6000	10.9	12.91	1.84
6046	11.0	12.91	1.86
6250	11.2	12.69	1.98
6500	11.7	12.83	2.10
6750	11.9	12.50	2.24
7000	12.0	12.21	2.38
7250	12.4	12.09	2.52
7500	12.4	11.70	2.66
7750	12.3	11.26	2.80
7943	12.5	11.17	2.92
8000	12.4	11.04	2.96
8250	12.3	10.59	3.12
8500	11.8	9.87	3.30
8750	11.8	9.53	3.48
9000	12.0	9.45	3.64
9250	11.8	9.01	3.84
9500	11.4	8.47	4.04
9750	11.2	8.14	4.24
10000	11.1	7.83	4.46
10250	10.4	7.17	4.70
...	...	...	...

LOSSES: 0.0 HP 0.05 N·M/M  
TOTAL ENGINE: 12.5 HP 12.91 N·M/M

LAMPIRAN 4

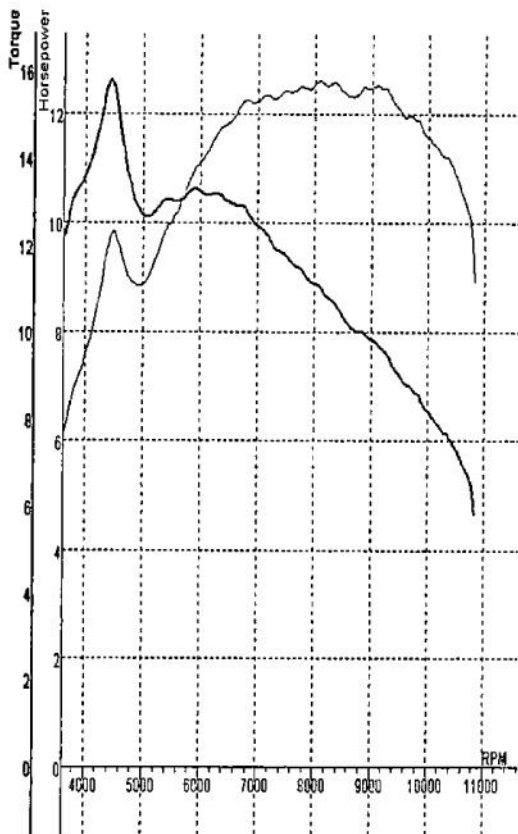
TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM-ETANOL  
DENGAN KANDUNGAN ETANOL 5% PERCOBAAN PERTAMA



SPOKIDINO V13  
DYNAMOMETER: Mototech EPO  
ROLLER INERTIA: 1.416

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

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
MEGAPRO 160CC TU12		15.80 (15.80) / 4447	29.8 °C	75 %	1000.0 mbar	97.8	2012/01/16 11:13:27 AM



DATA FOR TEST: MEGAPRO 160CC TU12

Comments  
CDI STANDAR/E 5 %

RPM	HP (HP)	NM*MM	T
3250	6.4	12.50	0.52
3500	6.6	12.75	0.54
3750	6.8	12.95	0.56
4000	7.7	13.72	0.68
4250	9.0	15.04	0.78
4447	9.8	15.80	0.86
4500	9.8	15.54	0.90
4750	9.0	13.39	1.04
5000	8.9	12.69	1.16
5250	9.5	12.91	1.30
5500	10.1	13.04	1.42
5750	10.6	13.18	1.54
6000	11.2	13.21	1.68
6250	11.6	13.20	1.80
6500	11.9	12.94	1.94
6750	12.2	12.89	2.06
7000	12.2	12.41	2.20
7250	12.3	12.04	2.34
7500	12.4	11.71	2.50
7750	12.5	11.44	2.64
8000	12.6	11.14	2.80
8250	12.6	11.08	2.94
8500	12.4	10.31	3.12
8750	12.4	10.01	3.28
9000	12.5	9.83	3.46
9250	12.5	9.54	3.64
9500	12.0	8.95	3.94
9750	11.9	8.61	4.04
10000	11.6	8.18	4.24
10250	11.2	7.74	4.66
10500	10.8	7.28	4.70
(max)			

LOSSES: 0.0 HP 0.0NM\*MM  
TOTAL ENGINE: 12.6HP 15.80NM\*MM

LAMPIRAN 5

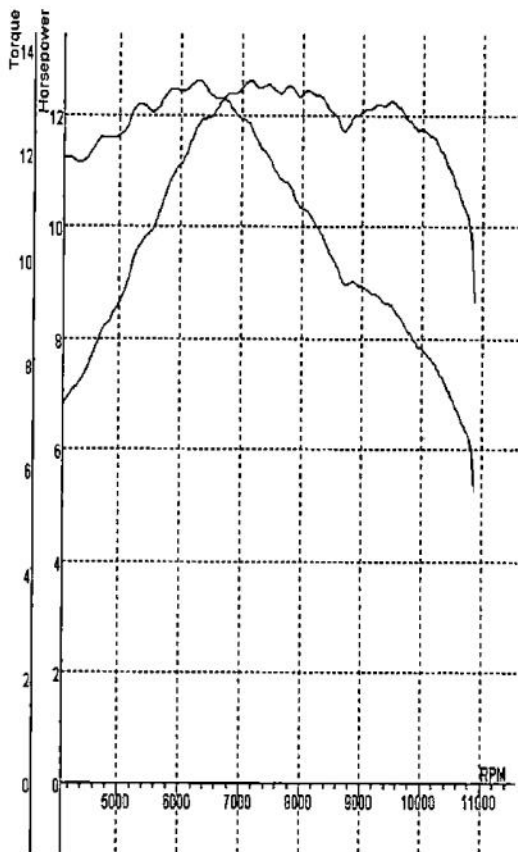
TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM-ETANOL  
DENGAN KANDUNGAN ETANOL 5% PERCOBAAN KE DUA



SPORINDING VLS  
DEMANOMIZER: Mototech EPD  
ROLLER INERTIA: 1.646

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

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	RPM	Date/Time
MEGAPRO 160CC T013	12.6 (12.6) / 7123	13.42 (13.42) / 6297	29.8 °C	75%	1000.0 mbar	979	20/02/2014 11:33:44 AM



DATA FOR TEST: MEGAPRO 160CC T013

Comments  
CDI STANDAR / E.5 %

RPM	HP (HEQ) (N*HR/M)	T	Y
3500	6.9	11.97	0.52
3750	7.0	11.97	0.54
4000	7.0	11.95	0.56
4250	7.1	11.89	0.60
4500	7.5	12.01	0.72
4750	8.2	12.35	0.86
5000	8.7	12.41	1.00
5250	9.5	12.92	1.12
5500	9.9	12.83	1.26
5750	10.7	13.19	1.38
6000	11.1	13.23	1.50
6250	11.8	13.41	1.62
6297	11.8	13.42	1.64
6500	12.0	13.12	1.76
6750	12.4	13.04	1.88
7000	12.5	12.69	2.02
7123	12.6	12.60	2.08
7250	12.5	12.25	2.16
7500	12.5	11.75	2.32
7750	12.5	11.46	2.46
8000	12.4	10.97	2.62
8250	12.4	10.59	2.78
8500	12.0	9.99	2.96
8750	11.8	9.54	3.12
9000	12.1	9.50	3.30
9250	12.2	9.33	3.48
9500	12.2	9.12	3.66
9750	11.9	8.65	3.86
10000	11.8	8.30	4.08
10250	11.5	7.90	4.28
10500	10.9	7.31	4.52
10750	10.2	6.68	4.78
(cont)			

LOSSES: 0.0 HP 0.05\*HP\*H  
TOTAL ENGINE: 12.65P 13.42N\*HR\*H

LAMPIRAN 6

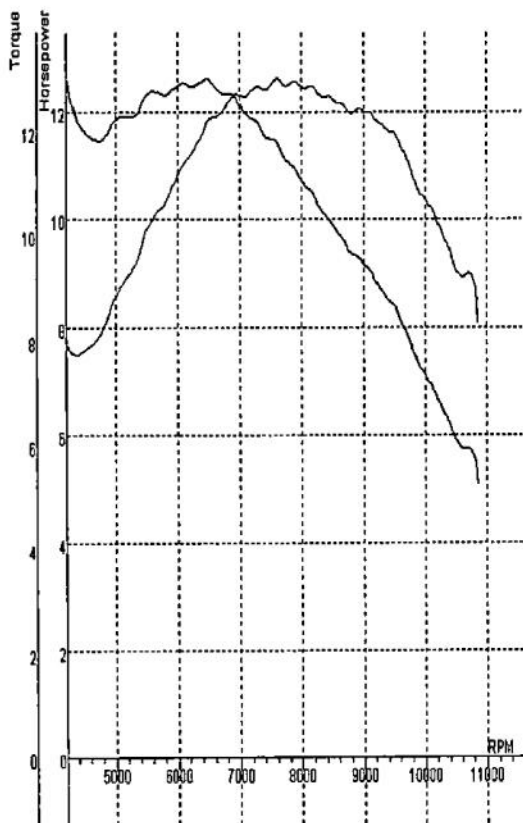
TABEL PERCOBAAN DENGAN CDI STANDAR BERBAHAN BAKAR PREMIUM-ETANOL  
DENGAN KANDUNGAN ETANOL 5% PERCOBAAN KE TIGA



SPORIDINDO V13  
DINAMOMETER: Mototech KFD  
RUMAH (MEXIA): 1.446

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

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
MEGAFED 1600C TU18	12.6 (1.3) / 7595	13.02 (4.65) / 6460	29.8 °C	75%	1000.0 mbar	92.3	20180114 11:15:10 AM



DATA FOR TEST: MEGAFED 1600C TU18

Comments  
CDI STANDAR/E5.5%

RPM	HP (MEQ) (N*MM)	T	
3500	7.6	12.71	0.52
3750	7.5	12.51	0.54
4000	7.5	12.37	0.56
4250	7.5	12.26	0.58
4500	7.6	12.00	0.66
4750	7.9	11.83	0.80
5000	8.6	12.24	0.94
5250	9.1	12.29	1.08
5500	9.8	12.71	1.20
5750	10.3	12.70	1.34
6000	10.8	12.89	1.46
6250	11.3	12.87	1.60
6460	11.8	13.02	1.70
6500	11.9	12.97	1.74
6750	12.1	12.73	1.86
7000	12.3	12.49	2.00
7250	12.5	12.15	2.16
7500	12.5	11.85	2.28
7595	12.6	11.80	2.34
7750	12.5	11.41	2.44
8000	12.4	11.00	2.60
8250	12.3	10.60	2.76
8500	12.2	10.21	2.92
8750	12.0	9.73	3.10
9000	12.0	9.44	3.28
9250	11.8	9.01	3.48
9500	11.6	8.65	3.68
9750	10.9	7.93	3.90
10000	10.4	7.31	4.14
10250	9.8	6.75	4.40
10500	9.1	6.11	4.68
10750	8.9	5.86	4.98

LOSSES: 11.3 HP 8.6N\*MM  
TOTAL ENGINE: 1.3HP 4.65N\*MM

LAMPIRAN 7

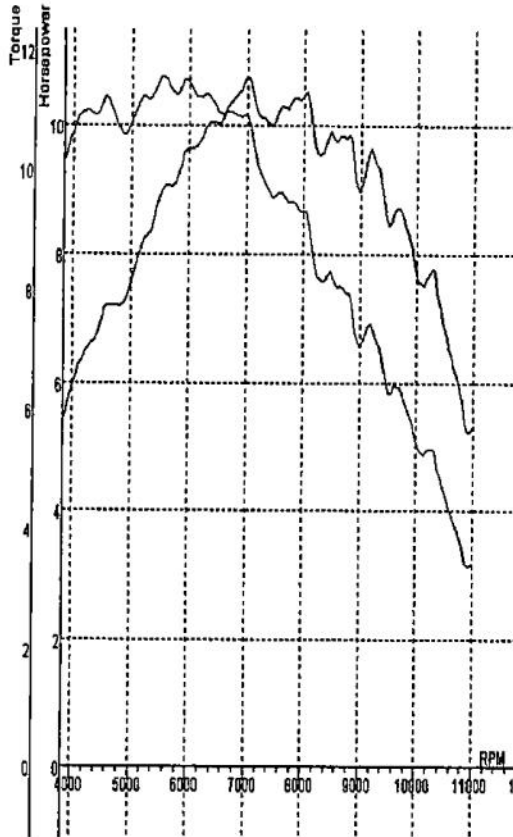
TABEL PERCOBAAN DENGAN CDI RACING TIMING STANDAR BERBAHAN BAKAR PREMIUM-ETANOL DENGAN KANDUNGAN ETANOL 5% PERCOBAAN PERTAMA



SPORIDINO VLS  
DYNAMOMETER: Mototech EPD  
ROLLER INERTIA: 1.446

Displacement Correction  
Correction Factor: 130.1585  
NOTE: Load Cell Included

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
MEGAPRO 160CC TQM	10.8 (10.8) / 7026	11.57 (11.57) / 5588	29.8 °C	75 %	1000.0 mbar	100.7	20180214 11:28:03 AM



DATA FOR TEST: MEGAPRO 160CC TQM

Comments  
CDI RACING (STD) / E.S %

RPM	HP (HP) (P/HP)	T	
3500	5.6	10.30	0.52
3750	5.7	10.40	0.54
4000	6.0	10.68	0.60
4250	6.6	10.99	0.76
4500	7.0	11.12	0.90
4750	7.2	10.77	1.08
5000	7.6	10.80	1.22
5250	8.3	11.21	1.38
5500	8.9	11.53	1.52
5588	9.0	11.57	1.56
5750	9.1	11.26	1.68
6000	9.6	11.60	1.84
6250	10.0	11.29	2.00
6500	10.0	10.98	2.14
6750	10.4	10.95	2.30
7000	10.8	10.93	2.46
7026	10.8	10.88	2.62
7250	10.1	9.90	2.64
7500	10.1	9.56	2.82
7750	10.4	9.45	3.02
8000	10.5	9.30	3.20
8250	9.6	8.20	3.42
8500	9.8	8.17	3.64
8750	9.8	7.95	3.84
9000	9.1	7.12	4.10
9250	9.4	7.19	4.34
9500	8.4	6.29	4.60
9750	8.5	6.16	4.90
10000	7.6	5.39	5.22
10250	7.7	5.39	5.56
10500	6.8	4.55	5.98
10750	6.0	3.92	6.42
(-r/min)			

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 10.8HP 11.57N\*M\*M

## LAMPIRAN 8

### TABEL PERCOBAAN DENGAN CDI RACING TIMING STANDAR BERBAHAN BAKAR PREMIUM-ETANOL DENGAN KANDUNGAN ETANOL 5% PERCOBAAN KE DUA

**Mototech**  
Indonesia

Dyno Center G. Mototech Research Report  
A. Suryandhi, M. Rizki, A. Nurrahman, A. Nurrahman, M. Nurrahman,  
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Telp. +62 274 822222

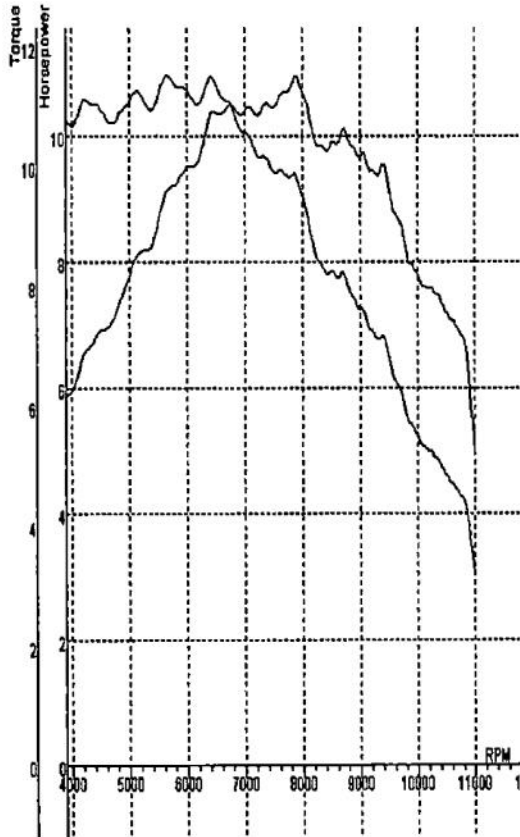
SPORIDINO VLS  
DYNAMOMETER: Mototech EPD  
ROLLER INERTIA: 1.446

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

TEST NAME	MAX POWER	MAX TORQUE	Temp. °C	Humidity %	Pressure	RPM	Date/Time
MEGAPRO 160CC T025	11.0(11.0)/7877	11.55(11.55)/5654	29.8 °C	75 %	10000 mbar	1006	2/18/2014 11:24:23 AM

#### DATA FOR TEST: MEGAPRO 160CC T025

Comments  
CH RACING (STD) / E 5 %



RPM	HP (CHP) (N*M*PM)	T	
3500	5.9	10.73	0.52
3750	5.9	10.70	0.54
4000	6.0	10.71	0.56
4250	6.6	11.13	0.72
4500	6.9	10.97	0.88
4750	7.2	10.81	1.04
5000	7.8	11.12	1.18
5250	8.2	11.12	1.34
5500	8.8	11.33	1.50
5654	9.2	11.55	1.58
5750	9.2	11.42	1.64
6000	9.5	11.28	1.80
6250	9.8	11.15	1.94
6500	10.4	11.36	2.10
6750	10.5	11.07	2.26
7000	10.5	10.58	2.44
7250	10.4	10.17	2.60
7500	10.5	9.91	2.78
7750	10.8	9.84	2.96
7877	11.0	9.89	3.04
8000	10.7	9.43	3.14
8250	9.8	8.46	3.34
8500	9.9	8.26	3.56
8750	10.0	8.09	3.78
9000	9.7	7.63	4.00
9250	9.4	7.17	4.26
9500	9.1	6.73	4.52
9750	8.4	6.07	4.80
10000	7.8	5.51	5.12
10250	7.6	5.20	5.46
10500	7.2	4.82	5.84
10750	6.8	4.49	6.24
(max)			

LOSSES: 0.0 HP 0.0N\*M\*PM  
TOTAL ENGINE: 11.0HP 11.55N\*M\*PM