



LAMPIRAN

Lampiran 1. Dokumentasi Alat dan Bahan



Bahan Kawat Perak Diameter 0,8mm
(Sumber : Dokumen Pribadi)



Bahan Kawat Tembaga Diameter 0,8mm
(Sumber : Dokumen Pribadi)



Koil Standar JupiterMx
(Sumber : Dokumen Pribadi)



Koil Lilitan Tembaga
(Sumber: Dokumen Pribadi)



Koil Lilitan Perak
(Sumber: Dokumen Pribadi)

Lampiran 2. Dokumentasi Penelitian Percikan Bunga Api Busi



Percikan Bunga Api Busi Koil Standar
(Sumber: Dokumn Pribadi)



Percikan Bunga Api Busi Koil *Groundstrap* Tembaga
(Sumber : Dokumen Pribadi)



Percikan Bunga Api Busi Koil *Groundstrap* Perak
(Sumber : Dokumen Pribadi)

Lampiran 3. Dokumentasi Proses Pencarian Data Daya dan Torsi



Proses Pengambilan Data Daya dan Torsi
(Sumber: Dokumen Pribadi)



Proses Pengambilan Data Daya dan Torsi
(Sumber: Dokumen Pribadi)



Proses Pengambilan Data Daya dan Torsi
(Sumber: Dokumen Pribadi)



Proses Pengambilan Data Daya dan Torsi
(Sumber: Dokumen Pribadi)

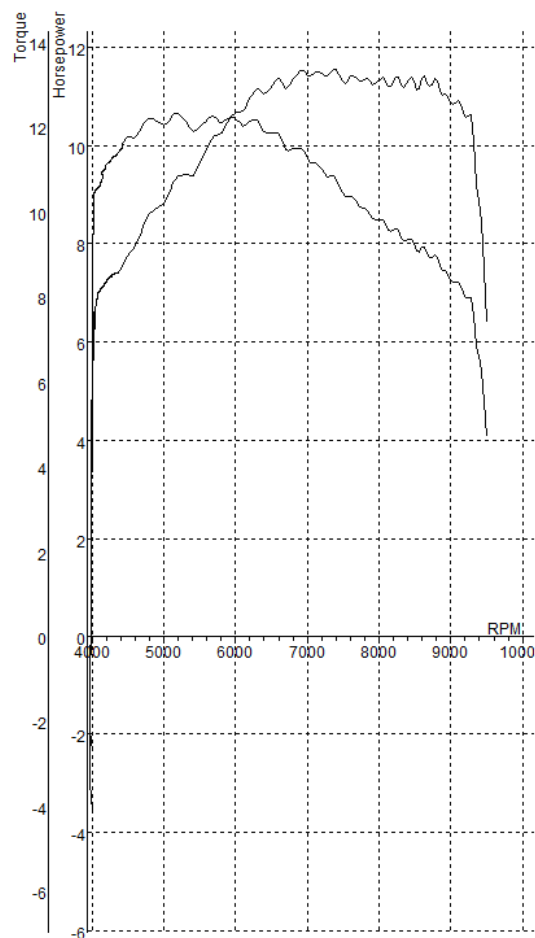
Lampiran 4. Dokumentasi Hasil Data Daya dan Torsi



SPORTDYNO V3.7
DYNAMOMETER: SD325
ROLLER INERTIA: 4.6

Displacement Correction
Correction Factor: ISO 1585

Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL PERAK003	11.6 (11.6) / 7000	12.13 (12.13) / 6000	94.5	33.0	63	1002.0	1/3/2008 2:43:53 AM



DATA FOR TEST: COIL PERAK003

RPM	HP (HP)	TQ (N*M)	
3000	8.1	8.36	0.82
4000	8.9	8.71	1.62
5000	10.7	12.06	2.48
6000	11.4	12.13	3.36
7000	11.6	11.18	3.68
8000	11.4	10.84	4.36
9000	10.8	9.82	5.50

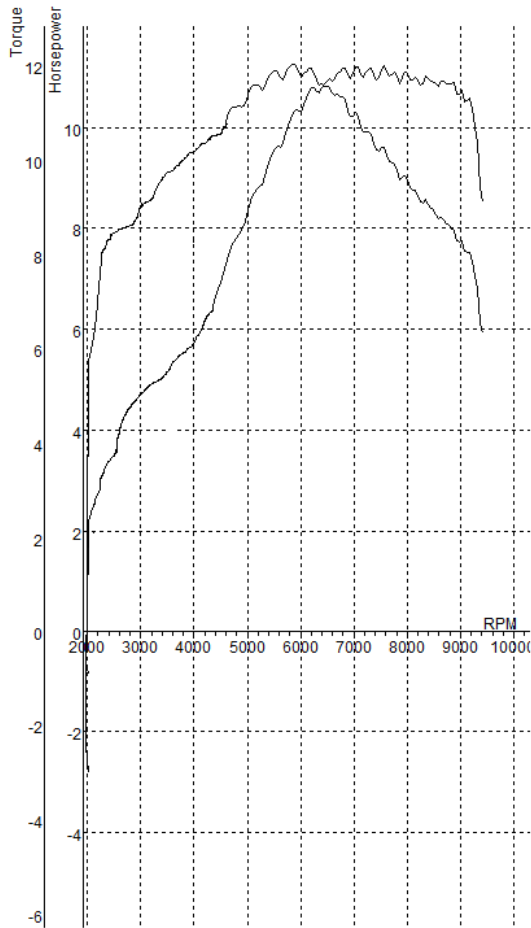
LOSSES 0.0 HP 0.0N*M
TOTAL ENGINE: 11.6HP 12.13N*M



SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

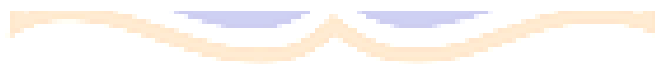
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL PERAK002	11.2 (11.2) / 7000	12.04 (12.04) / 6000	93.5	33.0	63	1002.0	1/3/2008 2:09:34 AM



DATA FOR TEST: COIL PERAK002

RPM	HP (HP)	TQ (N*M)
3000	4.9	8.31
4000	6.4	9.07
5000	8.4	11.47
6000	10.3	12.04
7000	11.2	11.77
8000	11.0	11.02
9000	10.7	11.00

LOSSES: 0.0 HP 0.0N*M
 TOTAL ENGINE: 11.2HP 12.04N*M

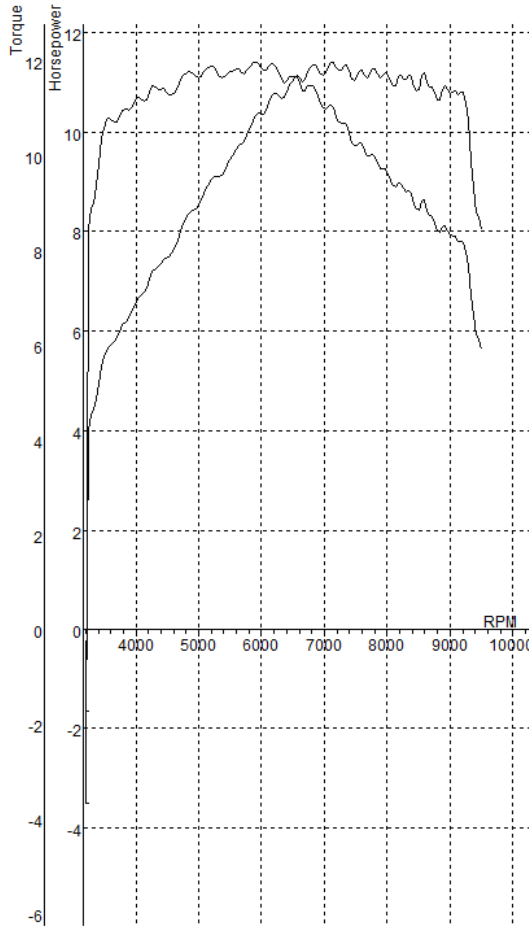




SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

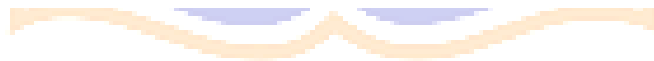
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL PERAK001	11.2 (11.2) / 7000	11.98 (11.98) / 6000	94.4	33.0	63	1002.0	1/3/2008 2:43:33 AM



DATA FOR TEST: COIL PERAK001

RPM	HP (HP)	TQ (N*M)	
3000	6.7	10.99	1.54
4000	8.6	11.24	2.46
5000	10.3	11.68	3.22
6000	10.4	11.98	3.34
7000	11.2	11.78	4.22
8000	11.1	11.04	4.32
9000	10.1	9.56	5.24

LOSSES 0.0 HP 0.0N*M
 TOTAL ENGINE: 11.2HP 11.98N*M

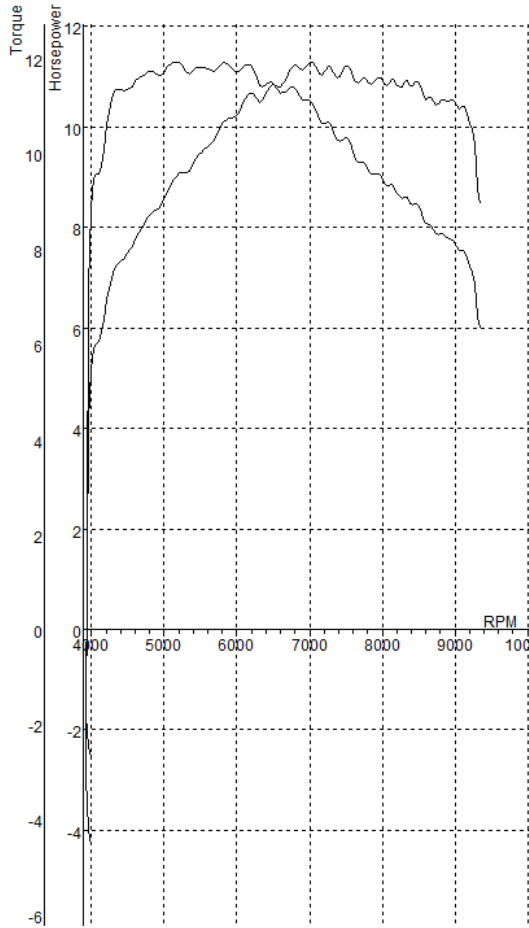




SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

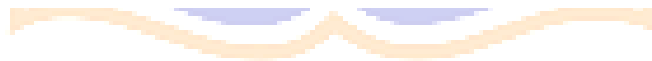
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL TEMBAGA003	11.3 (11.3) / 8000	11.80 (11.80) / 5000	93.3	33.0	63	1002.0	1/3/2008 1:05 :11 AM



DATA FOR TEST: COIL TEMBAGA003

RPM	HP (HP)	TQ (N*M)
3000	5.6	9.48
4000	8.7	10.67
5000	9.0	11.80
6000	10.3	11.74
7000	10.7	11.09
8000	11.3	11.09
9000	10.8	9.34
10000		5.84

LOSSES 0.0 HP 0.0N*M
 TOTAL ENGINE: 11.3HP 11.80 N*M

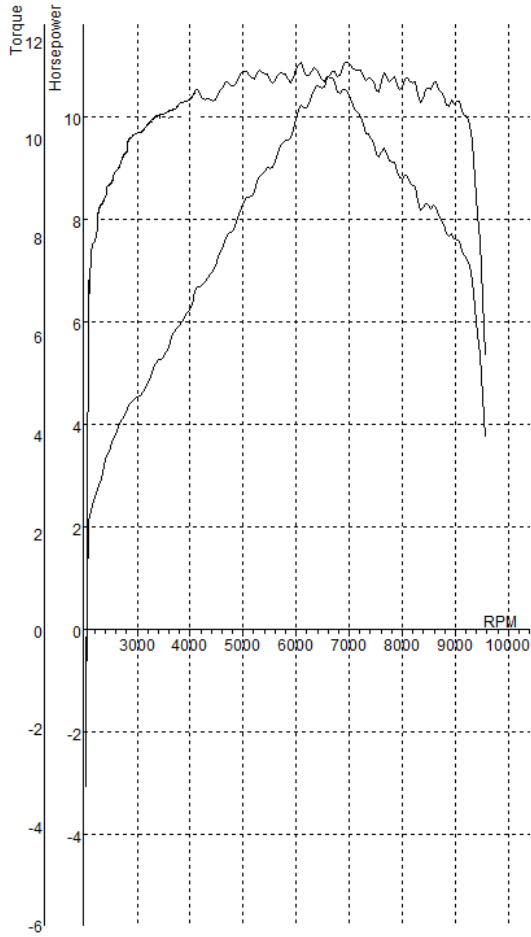




SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

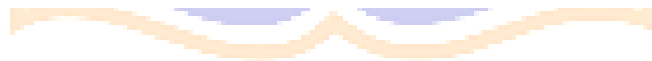
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL TEMBAGA002	11.0 (11.0) / 7000	11.55 (11.55) / 6000	94.1	33.0	63	1002.0	1/3/2008 1:04:36 AM



DATA FOR TEST: COIL TEMBAGA002

RPM	HP (HP)	TQ (N*M)	
3000	4.5	10.67	1.86
4000	6.3	11.36	2.84
5000	8.4	11.49	3.78
6000	10.1	11.55	4.70
7000	11.0	11.00	4.74
8000	10.7	10.81	5.52
9000	10.3	9.21	5.60

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

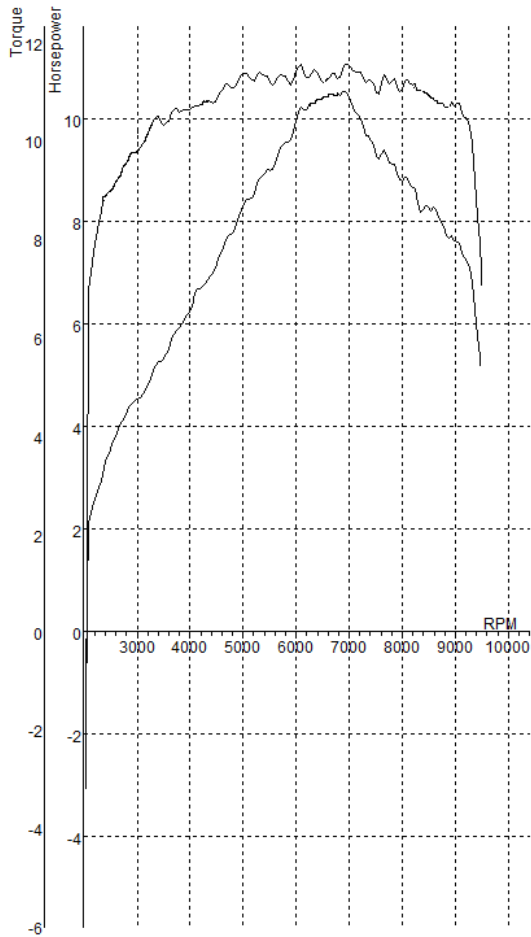




SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

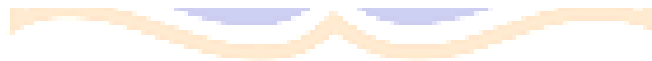
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
COIL TEMBAGA001	11.1 (11.1) / 7000	11.49 (11.49) / 6000	94.1	33.0	63	1002.0	1/3/2008 1:04:29 AM



DATA FOR TEST: COIL TEMBAGA001

RPM	HP (HP)	TQ (N*M)
3000	4.5	10.09
4000	6.3	10.67
5000	8.4	11.36
6000	10.1	11.49
7000	11.1	11.00
8000	11.0	10.81
9000	10.7	9.21

LOSSES: 0.0 HP 0.0N*M
 TOTAL ENGINE: 11.1HP 11.49N*M

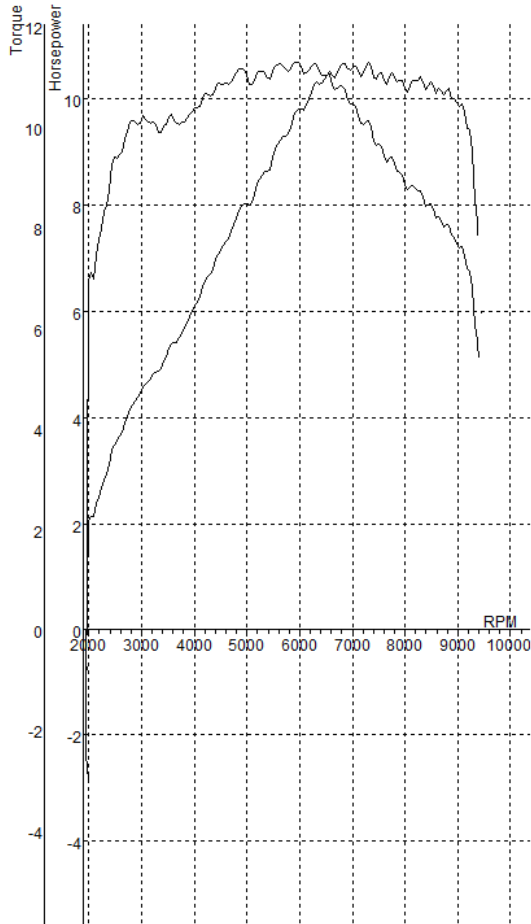




SPORIDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

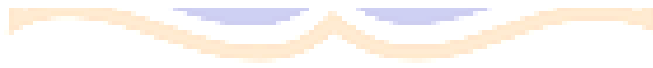
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (m bar)	Date/Time
COIL STD003	10.7 (10.7) / 7000	11.29 (11.29) / 6000	93.7	33.0	63	1002.0	1/3/2008 1:02:23 AM



DATA FOR TEST: COIL STD003

RPM	HP (HP)	TQ (N*M)
2000	2.1	7.15
3000	4.6	10.22
4000	6.2	10.38
5000	8.0	10.90
6000	10.6	11.29
7000	10.7	11.14
8000	10.1	10.41
9000	9.9	10.12

LOSSES 0.0 HP 0.0N*M
 TOTAL ENGINE: 10.7HP 11.29N*M

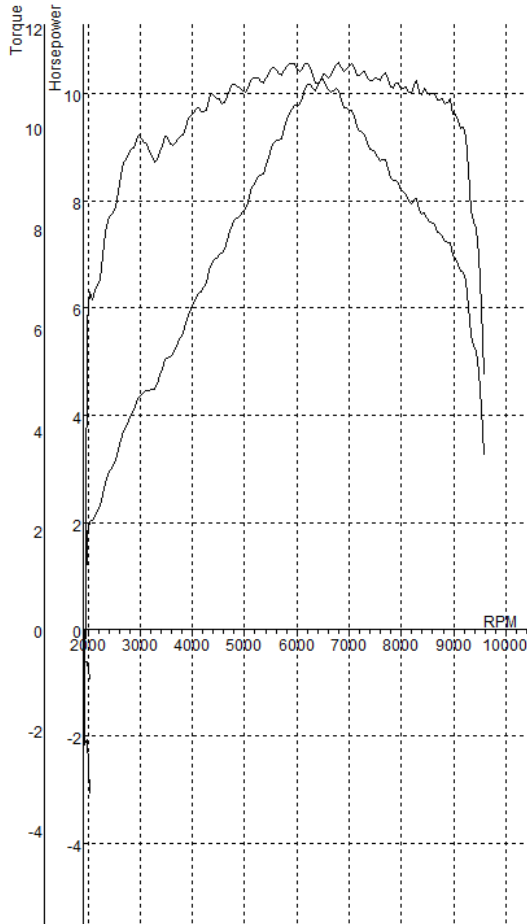




SPORTDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

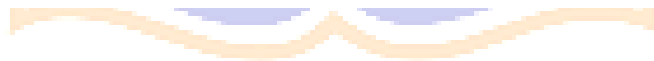
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (m bar)	Date/Time
COIL STD002	10.5 (10.5)/7000	11.12 (11.12)/ 6000	94.2	33.0	63	1002.0	1/3/2008 1:01:48 AM



DATA FOR TEST: COIL STD002

RPM	HP (HP)	TQ (N*M)
3000	4.4	9.78
4000	6.1	10.31
5000	7.9	10.73
6000	9.8	11.12
7000	10.5	10.35
8000	10.1	8.72
9000	9.6	7.40

LOSSES: 0.0 HP 0.0N*M
 TOTAL ENGINE: 10.5HP 11.12N*M

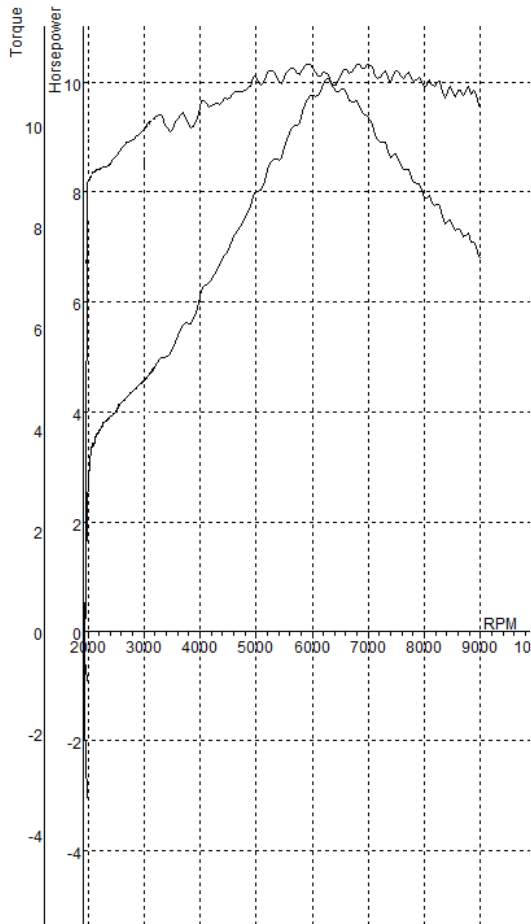




SPORIDYNO V3.7
 DYNAMOMETER: SD325
 ROLLER INERTIA: 4.6

Displacement Correction
 Correction Factor: ISO 1585

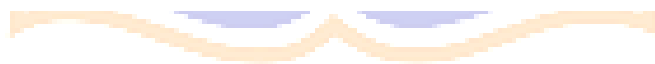
Name	HP/rpm	N*M/rpm	KMH	Temp. (°C)	Humidity (%)	Pressure (m bar)	Date/Time
COIL STD001	10.3 (10.3) / 7000	11.10 (11.10) / 6000	89.3	33.0	63	1002.0	1/3/2008 1:01:24 AM



DATA FOR TEST: COIL STD001

RPM	HP (HP)	TQ (N*M)
2000	3.3	8.71
3000	4.4	9.75
4000	6.2	10.49
5000	8.0	10.87
6000	9.8	11.10
7000	10.3	10.12
8000	9.9	8.57
9000	9.5	7.35

LOSSES: 0.0 HP 0.0N*M
 TOTAL ENGINE: 10.3HP 11.10 N*M



Lampiran 5. Riwayat Hidup

RIWAYAT HIDUP



I Gusti Bagus Hardian Putra Wijaya lahir di Denpasar pada tanggal 15 September 1998. Penulis lahir dari pasangan suami istri Bapak I Gusti Ngurah Ariama dan Ibu Ni Nyoman Nestri. Penulis berkembangsaan Indonesia dan beragama Hindu. Kini penulis beralamat di Banjar Pasar, Desa Pekutatan, Kecamatan Pekutatan, Kabupaten Jembrana, Provinsi Bali. Penulis menyelesaikan pendidikan dasar di SD Negeri 5 Pekutatan dan lulus pada tahun 2010. Kemudian penulis melanjutkan di SMP Negeri 1 Pekutatan dan lulus pada tahun 2013. Pada tahun 2016, penulis lulus dari SMA Negeri 1 Pekutatan jurusan Ilmu Pendidikan Alam dan melanjutkan ke S1 Jurusan Teknik Industri, Program Studi Pendidikan Teknik Mesin di Universitas Pendidikan Ganesha. Pada semester akhir tahun 2020 penulis telah menyelesaikan Tugas Akhir yang berjudul “Analisis Perbandingan Unjuk Kerja Motor Bensin Dengan Penambahan *Groundstrap* Berbahan Material Tembaga Dan Berbahan Material Perak Pada Kabel Koil Busi”.