



**Lampiran - Lampiran**

## Lampiran 01

### 1. Surat Izin Penelitian



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
UNIVERSITAS PENDIDIKAN GANESHA  
FAKULTAS TEKNIK DAN KEJURUAN  
JURUSAN TEKNOLOGI INDUSTRI

Alamat Jalan Udayana Nomor 11, Singaraja – Bali 81116  
Telepon (0362) 25571 Fax. (0362) 25571  
Laman <http://ee.undiksha.ac.id>

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Nomor : 37/UN48.11.6/PP/2021 Singaraja, 27 April 2021  
Lampiran : Satu eksemplar  
Prihal : Ijin penelitian (skripsi)

Yth. Kepala laboratorium jurusan otomotif SMK PGRI 2 Badung  
Jln. Gusti Ngurah Rai, Gg Cempaka Putih No 2 A

Diberitahukan dengan hormat bahwa, mahasiswa kami:

Nama : I Putu Budi Artayasa  
Nim : 1715071023  
Program Studi : Pendidikan Teknik Mesin

Bermaksud akan menyusun skripsi dengan tema “Pengaruh Variasi Diameter Kawat Tembaga Pada Sistem Bahan Bakar Terhadap Performansi Motor Bensin 4 Langkah” berkenaan dengan hal tersebut mohon kiranya agar yang bersangkutan dapat ijin untuk melakukan penelitian di tempat Saudara pimpin dengan alokasi waktu dari bulan April s.d selesai

Demikian surat ini disampaikan, atas perhatian dan kerjasama yang baik kami ucapkan terima kasih.

Mengetahui,  
Ketua Jurusan Teknologi Industri

Dr. Kadek Rihendra Dantes, S.T., M.T.  
NIP. 197912012006041001

## 2. Alat dan Bahan



Kawat Tembaga Diameter 0,20 mm



Kawat Tembaga Diameter 0,30 mm



Pertalite Murni

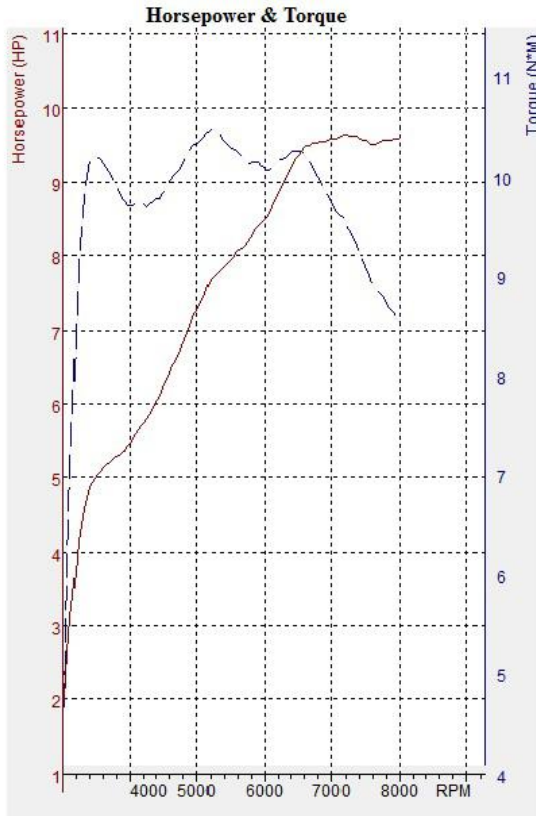
### 3. Hasil Pengujian Torsi dan Daya Standar



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SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_193	9.6 / 7136	10.47 / 5190	101.7	25.0	60	1000.0	28/04/2021 13:15:42



DATA FOR TEST: UNDIKSHA\_193

RPM	HP (HP)	TQ. Termol (N*M)	(T C-A) (°C)
3250	4.3	9.30	1000.0
3500	5.0	10.19	1000.0
3750	5.3	9.94	1000.0
4000	5.5	9.70	1000.0
4250	5.8	9.70	1000.0
4500	6.3	9.85	1000.0
4750	6.7	10.09	1000.0
5000	7.3	10.40	1000.0
5190	7.7	10.47	1000.0
5250	7.7	10.46	1000.0
5500	8.0	10.27	1000.0
5750	8.2	10.14	1000.0
6000	8.5	10.07	1000.0
6250	8.9	10.17	1000.0
6500	9.4	10.25	1000.0
6750	9.5	10.03	1000.0
7000	9.6	9.72	1000.0
7136	9.6	9.57	1000.0
7250	9.6	9.44	1000.0
7500	9.6	9.07	1000.0
7750	9.6	8.77	1000.0
8000	9.6	8.64	1000.0
8250	9.6	8.58	1000.0

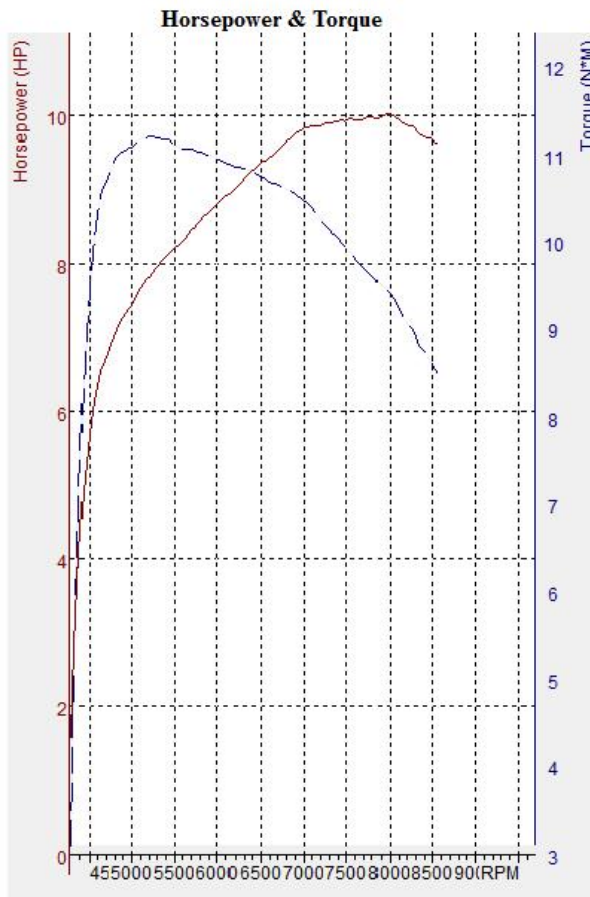
Wheel: 9.6 HP, 10.5 N\*M  
 LOSSES: 0.0 HP, 0.0 N\*M  
 TOTAL ENGINE: 9.6 HP, 10.47 N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_192	10.0 / 7963	10.69 / 5193	108.3	25.0	60	1000.0	09/04/2021 2:15:00



DATA FOR TEST: UNDIKSHA\_192

RPM	HP (HP)	TQ (N*M)	Temp (C-A) (°C)
4500	5.7	8.96	1000.0
4750	7.0	10.37	1000.0
5000	7.5	10.45	1000.0
<b>5193</b>	<b>7.8</b>	<b>10.69</b>	1000.0
5250	7.9	10.69	1000.0
5500	8.2	10.60	1000.0
5750	8.5	10.53	1000.0
6000	8.8	10.44	1000.0
6250	9.1	10.35	1000.0
6500	9.4	10.25	1000.0
6750	9.6	10.12	1000.0
7000	9.8	9.97	1000.0
7250	9.9	9.69	1000.0
7500	9.9	9.42	1000.0
7750	10.0	9.15	1000.0
<b>7963</b>	<b>10.0</b>	<b>8.94</b>	1000.0
8000	10.0	8.90	1000.0
8250	9.9	8.49	1000.0
8500	9.6	8.06	1000.0
8750	9.7	8.11	1000.0

Wheel 10.0 HP 10.7 N\*M  
 LOSSES 0.0 HP 0.0 N\*M  
**TOTAL ENGINE: 10.0 HP 10.69 N\*M**

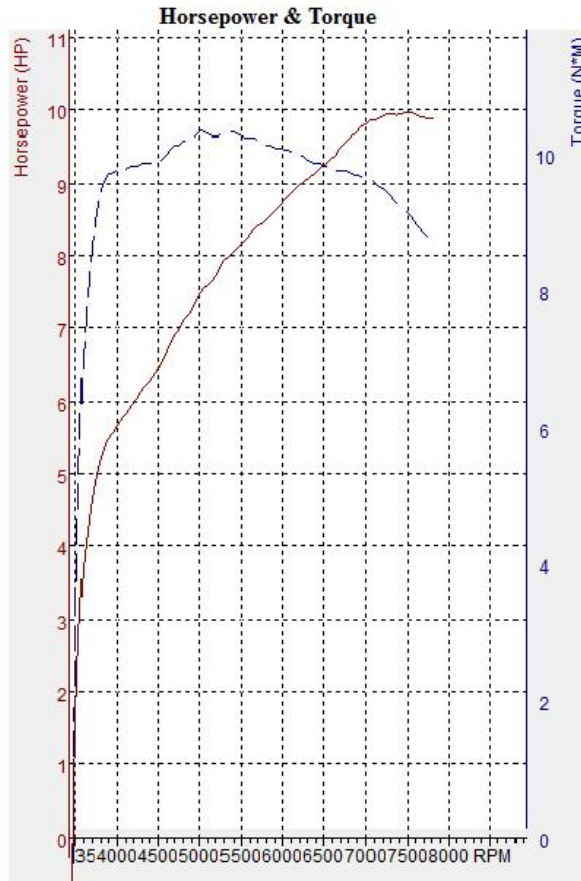






SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_188	10.0 / 7521	10.65 / 4999	100.2	25.0	60	1000.0	09/04/2021 2:02:52



DATA FOR TEST: UNDIKSHA\_188

RPM	HP (HP)	TQ (N*M)	Tempol (T C-A) (°C)
4000	5.7	10.06	1000.0
4250	6.1	10.14	1000.0
4500	6.5	10.20	1000.0
4750	7.0	10.44	1000.0
5000	7.5	10.50	1000.0
4999	7.5	10.65	1000.0
5250	7.8	10.58	1000.0
5500	8.2	10.55	1000.0
5750	8.4	10.45	1000.0
6000	8.8	10.38	1000.0
6250	9.0	10.26	1000.0
6500	9.3	10.13	1000.0
6750	9.6	10.06	1000.0
7000	9.8	9.96	1000.0
7250	10.0	9.75	1000.0
7500	10.0	9.44	1000.0
7521	10.0	9.42	1000.0
7750	9.9	9.07	1000.0
8000	9.9	9.14	1000.0

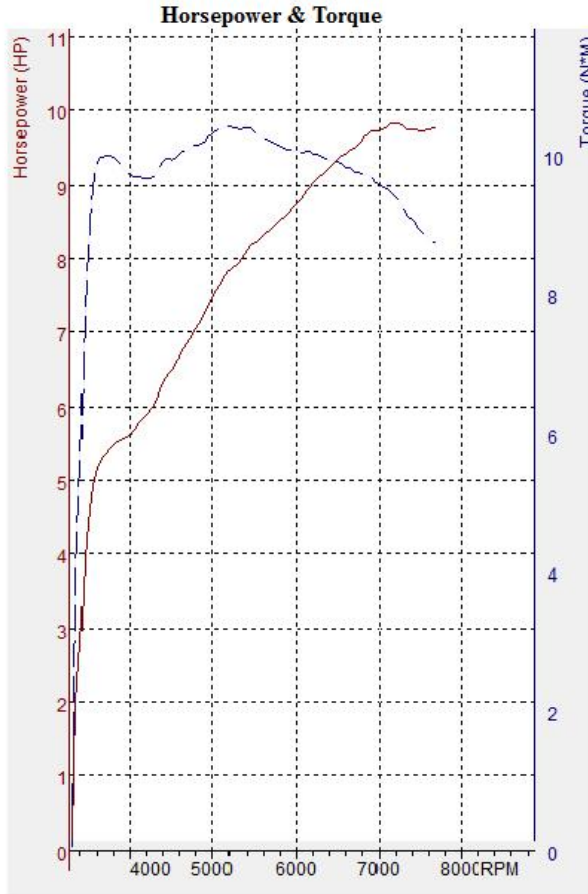
Wheel 10.0 HP 10.6 N\*M  
 LOSSES 0.0 HP 0.0 N\*M  
 TOTAL ENGINE: 10.0 HP 10.65 N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_187	9.8 / 7148	10.72 / 5174	99.5	25.0	60	1000.0	09/04/2021 2:02:26



DATA FOR TEST: UNDIKSHA\_187

RPM	HP (HP)	TQ (N*M)	Tempol (T C-A) (°C)
3500	4.6	9.35	1000.0
3750	5.5	10.30	1000.0
4000	5.6	10.01	1000.0
4250	6.0	10.00	1000.0
4500	6.5	10.25	1000.0
4750	7.0	10.43	1000.0
5000	7.5	10.43	1000.0
5174	7.8	10.72	1000.0
5250	7.9	10.69	1000.0
5500	8.2	10.62	1000.0
5750	8.5	10.46	1000.0
6000	8.8	10.37	1000.0
6250	9.1	10.32	1000.0
6500	9.4	10.22	1000.0
6750	9.6	10.06	1000.0
7000	9.7	9.88	1000.0
7148	9.8	9.74	1000.0
7250	9.8	9.62	1000.0
7500	9.7	9.20	1000.0
7750	9.8	8.97	1000.0
8000	9.8	9.01	1000.0

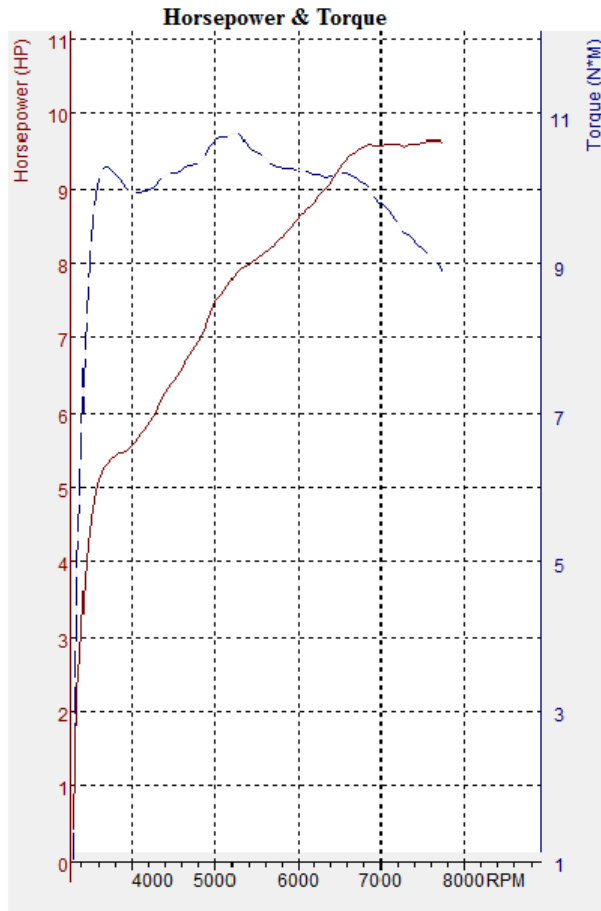
Wheel 9.8 HP 10.7 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 9.8HP 10.72N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_186	9.6 / 7940	10.67 / 5217	100.0	25.0	60	1000.0	09/04/2021 2:02:00



DATA FOR TEST: UNDIKSHA\_186

RPM	HP (HP)	TQ (N*M)	Temp (C-A) (°C)
3500	4.6	9.30	1000.0
3750	5.4	10.21	1000.0
4000	5.6	9.91	1000.0
4250	6.0	9.97	1000.0
4500	6.4	10.17	1000.0
4750	6.9	10.28	1000.0
5000	7.5	10.51	1000.0
5217	7.9	10.67	1000.0
5250	7.9	10.67	1000.0
5500	8.1	10.43	1000.0
5750	8.3	10.25	1000.0
6000	8.6	10.21	1000.0
6250	8.9	10.14	1000.0
6500	9.3	10.16	1000.0
6750	9.5	10.04	1000.0
7000	9.6	9.73	1000.0
7250	9.6	9.37	1000.0
7500	9.6	9.11	1000.0
7750	9.6	8.81	1000.0
7940	9.6	8.98	1000.0
8000	9.6	8.90	1000.0

Wheel 9.6 HP 10.7 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 9.6HP 10.67N\*M





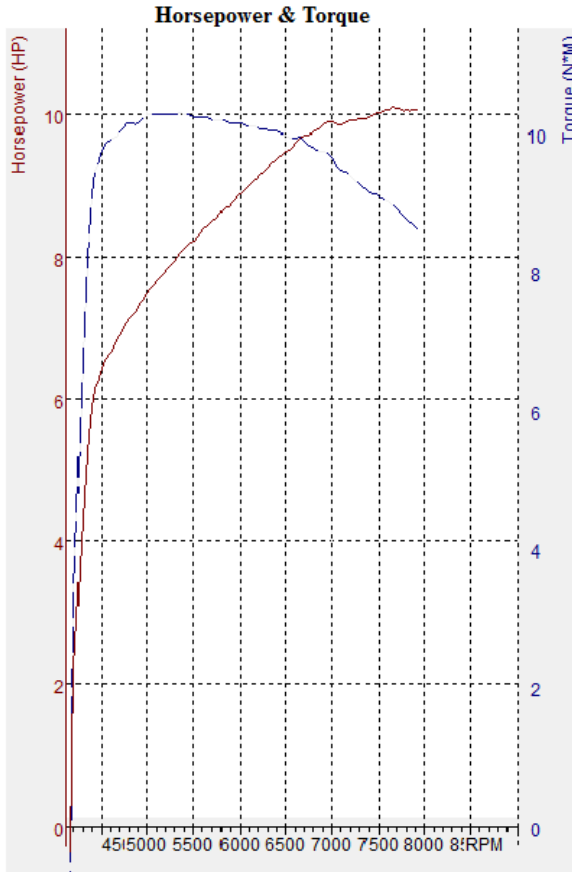
#### 4. Hasil Pengujian Torsi dan Daya Variasi 0,20 mm



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SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_204	10.1 / 7641	10.69 / 5333	102.5	25.0	60	1000.0	28/04/2021 13:38:52



DATA FOR TEST: UNDIKSHA\_204

RPM	HP (HP)	TQ (N*M)	Temp (C-A) (°C)
4250	3.6	6.03	1000.0
4500	6.4	10.17	1000.0
4750	7.0	10.52	1000.0
5000	7.5	10.66	1000.0
5250	7.9	10.67	1000.0
5333	8.1	10.69	1000.0
5500	8.2	10.62	1000.0
5750	8.6	10.59	1000.0
6000	8.9	10.55	1000.0
6250	9.2	10.46	1000.0
6500	9.5	10.37	1000.0
6750	9.7	10.24	1000.0
7000	9.9	10.03	1000.0
7250	9.9	9.73	1000.0
7500	10.0	9.50	1000.0
7641	10.1	9.36	1000.0
7750	10.1	9.22	1000.0
8000	10.0	8.87	1000.0
8250	10.0	8.96	1000.0

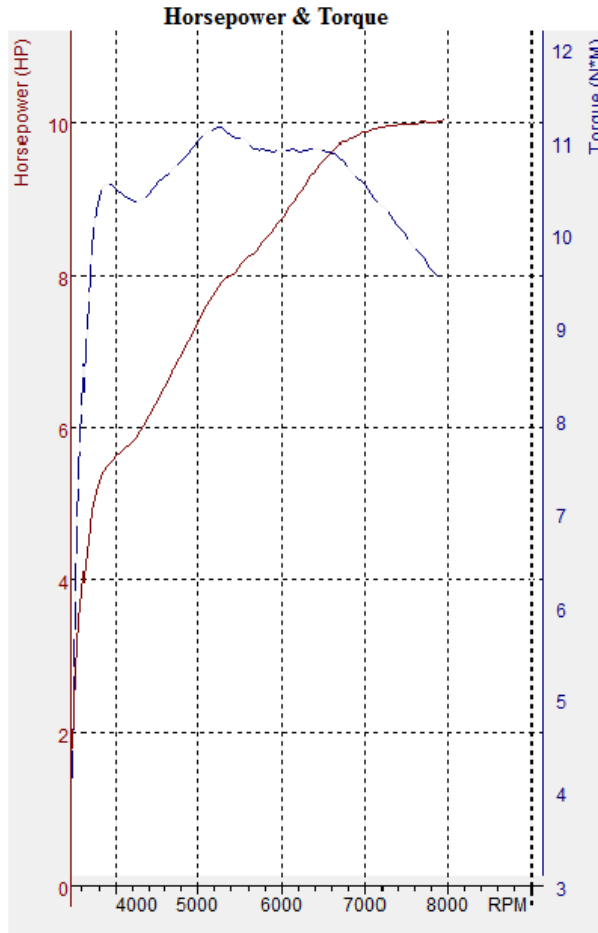
Wheel: 10.1 HP 10.7 N\*M  
 LOSSES: 0.0 HP 0.0 N\*M  
 TOTAL ENGINE: 10.1 HP 10.69 N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_202	10.0 / 7951	10.64 / 5254	102.7	25.0	60	1000.0	28/04/2021 13:38:05



DATA FOR TEST: UNDIKSHA\_202

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
3500	2.3	4.70	1000.0
3750	5.1	9.64	1000.0
4000	5.6	9.99	1000.0
4250	5.9	9.84	1000.0
4500	6.4	10.07	1000.0
4750	6.9	10.26	1000.0
5000	7.4	10.50	1000.0
5250	7.9	10.64	1000.0
<b>5254</b>	<b>7.9</b>	<b>10.64</b>	1000.0
5500	8.2	10.53	1000.0
5750	8.4	10.42	1000.0
6000	8.8	10.39	1000.0
6250	9.2	10.40	1000.0
6500	9.5	10.40	1000.0
6750	9.8	10.27	1000.0
7000	9.9	10.03	1000.0
7250	10.0	9.75	1000.0
7500	10.0	9.45	1000.0
7750	10.0	9.16	1000.0
<b>7951</b>	<b>10.0</b>	<b>8.97</b>	1000.0
8000	10.0	8.91	1000.0
8250	10.0	8.99	1000.0

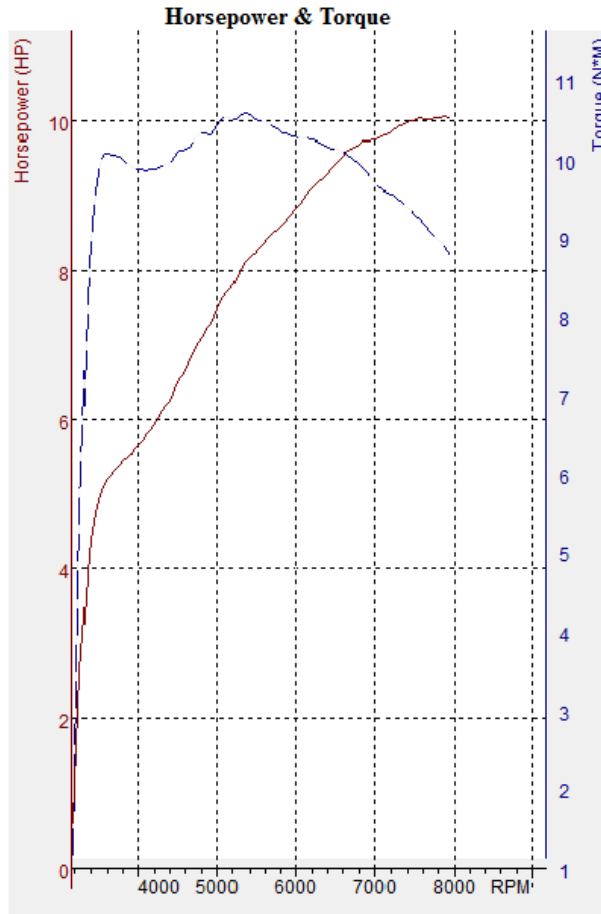
Wheel            10.0 HP      10.6 N\*M  
 LOSSES        0.0 HP      0.0N\*M  
**TOTAL ENGINE:** 10.0HP    10.64N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_201	10.0 / 7868	10.77 / 5348	102.4	25.0	60	1000.0	28/04/2021 13:37:40



DATA FOR TEST: UNDIKSHA\_201

RPM	HP (HP)	TQ (N*M)	Temp (T C-A) (°C)
3250	2.6	5.77	1000.0
3500	5.0	10.13	1000.0
3750	5.4	10.23	1000.0
4000	5.7	10.08	1000.0
4250	6.0	10.10	1000.0
4500	6.5	10.30	1000.0
4750	7.0	10.50	1000.0
5000	7.5	10.62	1000.0
5250	7.9	10.72	1000.0
5348	8.1	10.77	1000.0
5500	8.3	10.68	1000.0
5750	8.6	10.57	1000.0
6000	8.9	10.48	1000.0
6250	9.2	10.42	1000.0
6500	9.5	10.33	1000.0
6750	9.7	10.17	1000.0
7000	9.7	9.90	1000.0
7250	9.9	9.71	1000.0
7500	10.0	9.47	1000.0
7750	10.0	9.20	1000.0
7868	10.0	9.08	1000.0
8000	10.0	8.91	1000.0
8250	10.0	8.97	1000.0

Wheel 10.0 HP 10.8 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 10.0HP 10.77N\*M





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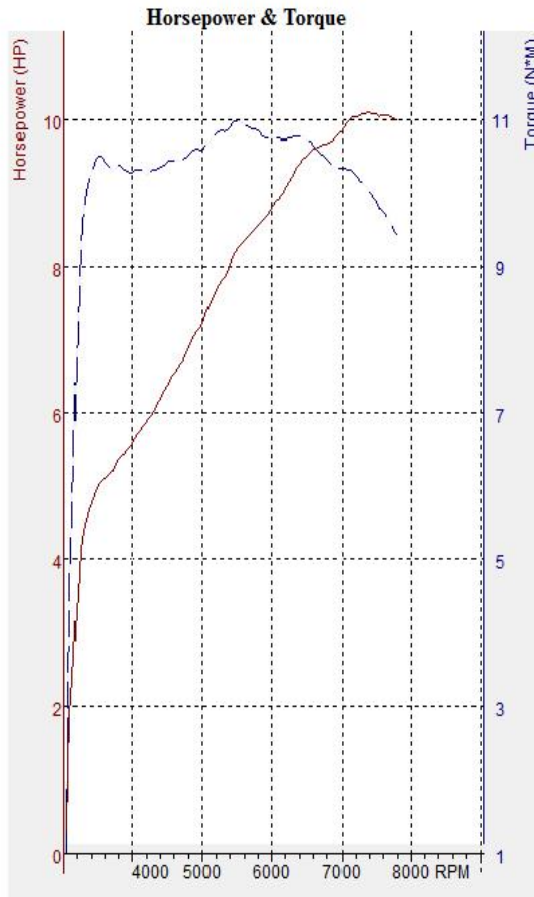
SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)

DYNAMOMETER: SMK PGRI 2 BADUNG

Correction Factor: EC95 -1

Power: HP (mechanic)

Name	HP/RPM	N*/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_200	10.1 / 7353	10.66 / 5500	99.6	25.0	60	1000.0	28/04/2021 13:37:18



DATA FOR TEST: UNDIKSHA\_200

RPM	HP (HP)	TQ (N*M)	Tempol (T C-A) (°C)
3250	4.1	9.01	1000.0
3500	5.0	10.19	1000.0
3750	5.3	10.05	1000.0
4000	5.6	9.98	1000.0
4250	6.0	9.98	1000.0
4500	6.4	10.12	1000.0
4750	6.8	10.15	1000.0
5000	7.2	10.41	1000.0
5250	7.8	10.53	1000.0
5500	8.3	10.66	1000.0
<b>5500</b>	<b>8.3</b>	<b>10.66</b>	1000.0
5750	8.5	10.54	1000.0
6000	8.8	10.43	1000.0
6250	9.2	10.42	1000.0
6500	9.5	10.40	1000.0
6750	9.7	10.18	1000.0
7000	9.9	10.02	1000.0
7250	10.1	9.85	1000.0
<b>7353</b>	<b>10.1</b>	9.74	1000.0
7500	10.1	9.54	1000.0
7750	10.0	9.17	1000.0
8000	10.0	9.29	1000.0

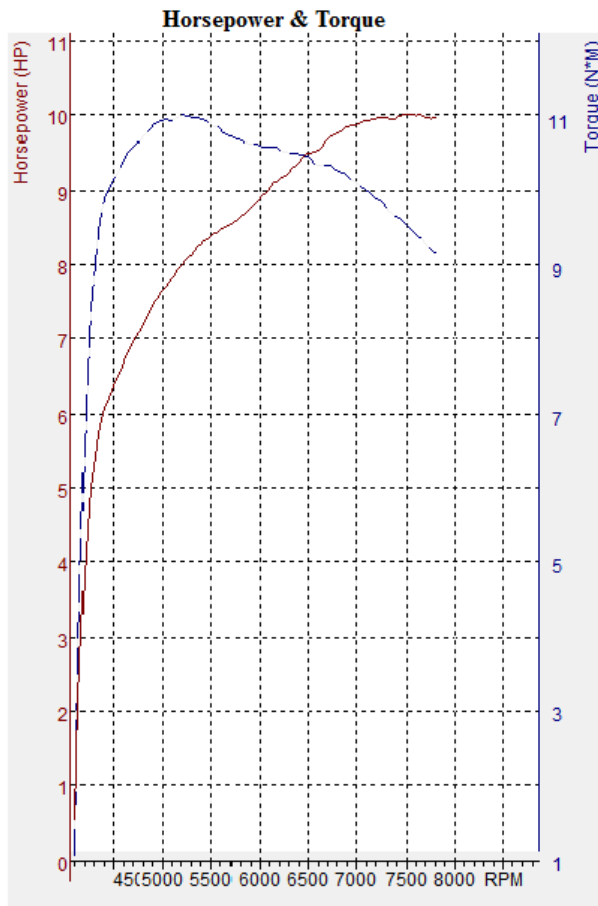
<b>Wheel</b>	10.1 HP	10.7 N*M
<b>LOSSES</b>	0.0 HP	0.0 N*M
<b>TOTAL ENGINE:</b>	10.1 HP	10.66 N*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_190	10.0 / 7500	10.95 / 5193	100.5	25.0	60	1000.0	09/04/2021 2:03:43



DATA FOR TEST: UNDIKSHA\_190

RPM	HP (HP)	TQ (N*M)	Temp (C-A) (°C)
4250	4.7	7.92	1000.0
4500	6.4	10.13	1000.0
4750	7.1	10.61	1000.0
5000	7.7	10.88	1000.0
5193	8.0	10.95	1000.0
5250	8.1	10.94	1000.0
5500	8.4	10.83	1000.0
5750	8.6	10.64	1000.0
6000	8.9	10.54	1000.0
6250	9.2	10.46	1000.0
6500	9.5	10.38	1000.0
6750	9.7	10.25	1000.0
7000	9.9	10.04	1000.0
7250	10.0	9.76	1000.0
7500	10.0	9.47	1000.0
7500	10.0	9.47	1000.0
7750	10.0	9.13	1000.0
8000	10.0	9.23	1000.0

Wheel: 10.0 HP 11.0 N\*M  
 LOSSES: 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 10.0HP 10.95N\*M





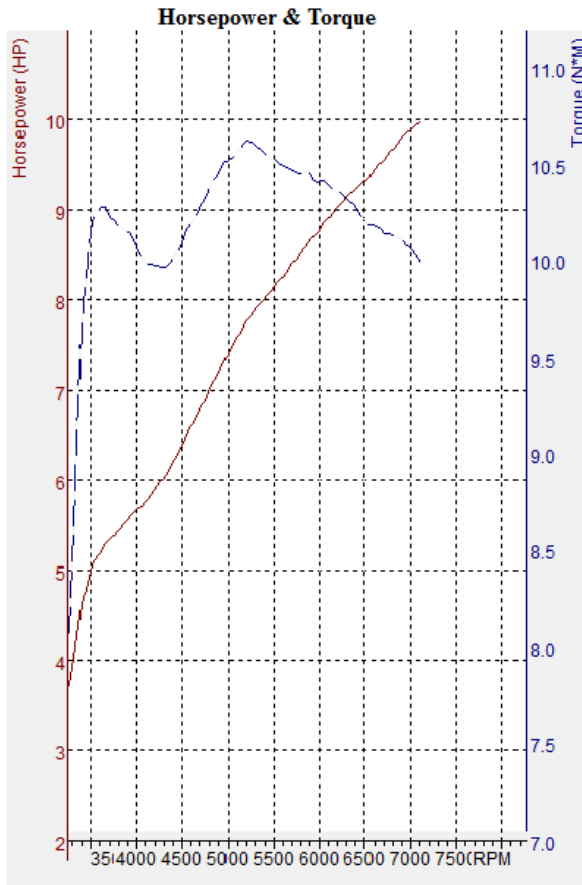
## 5. Hasil Pengujian Torsi dan Daya Variasi 0,30 mm



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SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_199	10.1 / 7222	10.62 / 5189	91.7	25.0	60	1000.0	28/04/2021 13:36:59



DATA FOR TEST: UNDIKSHA\_199

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
3250	3.6	7.79	1000.0
3500	5.0	10.20	1000.0
3750	5.4	10.20	1000.0
4000	5.7	10.07	1000.0
4250	6.0	9.97	1000.0
4500	6.4	10.12	1000.0
4750	6.9	10.32	1000.0
5000	7.4	10.53	1000.0
<b>5189</b>	<b>7.8</b>	<b>10.62</b>	1000.0
5250	7.8	10.61	1000.0
5500	8.1	10.53	1000.0
5750	8.5	10.45	1000.0
6000	8.8	10.41	1000.0
6250	9.1	10.34	1000.0
6500	9.3	10.21	1000.0
6750	9.6	10.14	1000.0
7000	9.9	10.05	1000.0
<b>7222</b>	<b>10.1</b>	9.92	1000.0
7250	9.8	10.11	1000.0
7500	10.0	9.97	1000.0

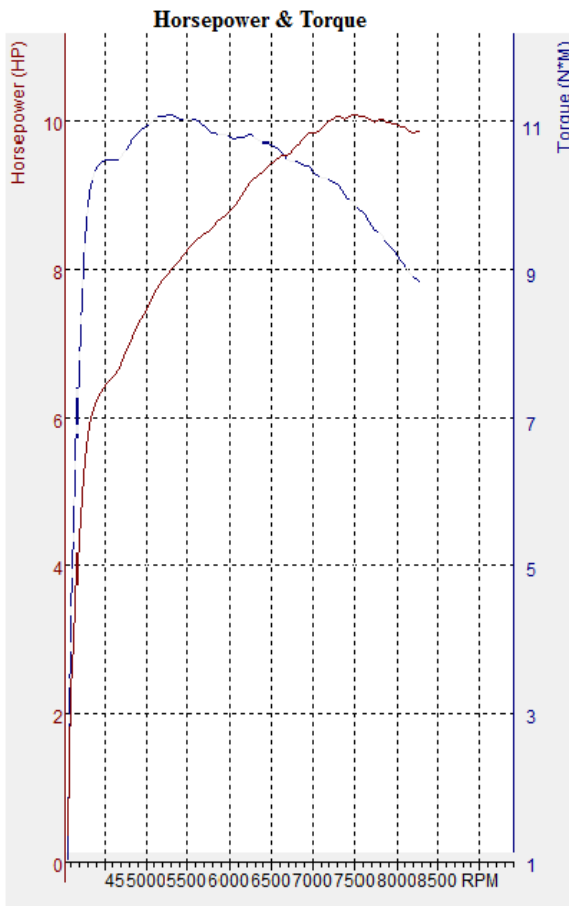
Wheel            10.1 HP    10.6 N\*M  
 LOSSES        0.0 HP    0.0 N\*M  
**TOTAL ENGINE:** 10.1HP    10.62N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_198	10.1 / 7495	10.74 / 5255	106.5	25.0	60	1000.0	28/04/2021 13:20:36



DATA FOR TEST: UNDIKSHA\_198

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
4250	5.2	8.72	1000.0
4500	6.4	10.15	1000.0
4750	6.9	10.30	1000.0
5000	7.4	10.59	1000.0
5250	7.9	10.74	1000.0
<b>5255</b>	<b>8.0</b>	<b>10.74</b>	1000.0
5500	8.3	10.69	1000.0
5750	8.5	10.54	1000.0
6000	8.8	10.43	1000.0
6250	9.2	10.47	1000.0
6500	9.5	10.33	1000.0
6750	9.6	10.14	1000.0
7000	9.8	10.00	1000.0
7250	10.0	9.84	1000.0
7500	10.1	9.55	1000.0
<b>7495</b>	<b>10.1</b>	<b>9.53</b>	1000.0
7750	10.0	9.17	1000.0
8000	9.9	8.83	1000.0
8250	9.9	8.50	1000.0
8500	9.9	8.52	1000.0

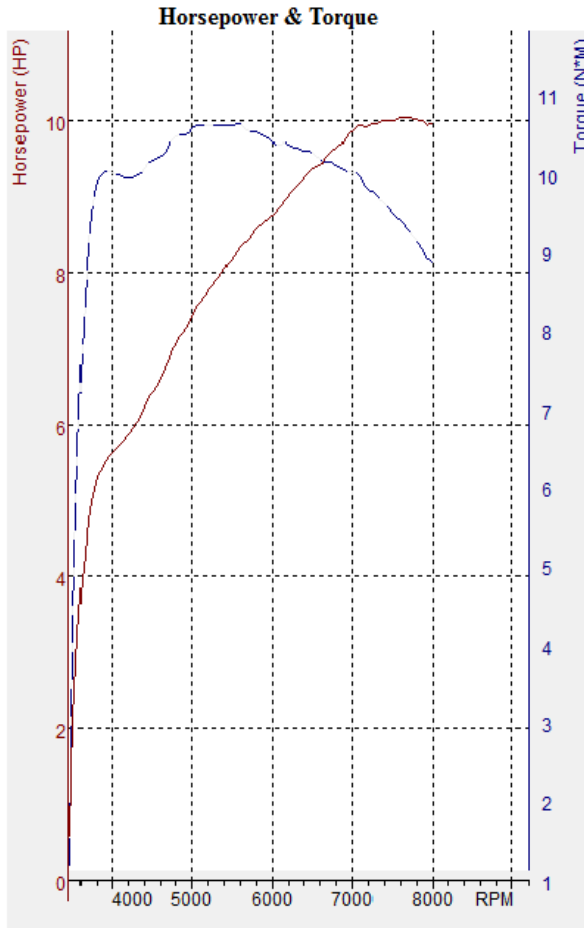
Wheel 10.1 HP 10.7 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 10.1HP 10.74N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_197	10.1 / 7620	10.63 / 5566	103.3	25.0	60	1000.0	28/04/2021 13:20:08



DATA FOR TEST: UNDIKSHA\_197

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
3500	1.8	3.75	1000.0
3750	5.1	9.63	1000.0
4000	5.6	10.01	1000.0
4250	6.0	9.97	1000.0
4500	6.5	10.18	1000.0
4750	7.0	10.43	1000.0
5000	7.5	10.58	1000.0
5250	7.8	10.62	1000.0
5500	8.2	10.61	1000.0
5566	8.3	10.63	1000.0
5750	8.5	10.53	1000.0
6000	8.8	10.38	1000.0
6250	9.1	10.33	1000.0
6500	9.4	10.25	1000.0
6750	9.6	10.13	1000.0
7000	9.9	10.02	1000.0
7250	10.0	9.76	1000.0
7500	10.0	9.48	1000.0
7620	10.1	9.36	1000.0
7750	10.0	9.18	1000.0
8000	9.9	8.82	1000.0
8250	10.0	8.91	1000.0

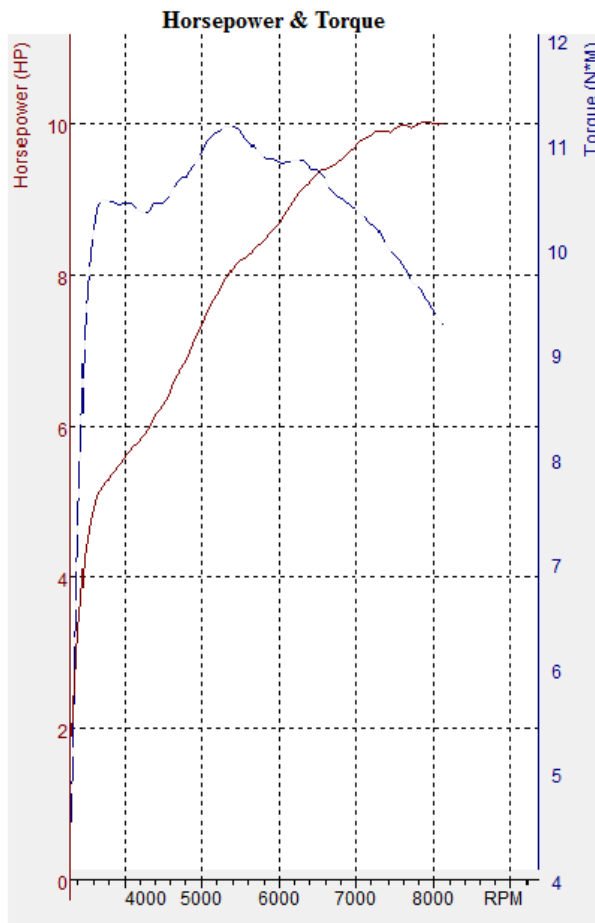
Wheel: 10.1 HP 10.6 N\*M  
 LOSSES: 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 10.1HP 10.63N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_196	10.0 / 8241	10.66 / 5357	103.1	25.0	60	1000.0	28/04/2021 13:19:39



DATA FOR TEST: UNDIKSHA\_196

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
3500	4.4	8.90	1000.0
3750	5.3	9.97	1000.0
4000	5.6	9.94	1000.0
4250	5.9	9.84	1000.0
4500	6.3	9.95	1000.0
4750	6.8	10.18	1000.0
5000	7.3	10.42	1000.0
5250	7.8	10.63	1000.0
5357	8.0	10.66	1000.0
5500	8.2	10.59	1000.0
5750	8.4	10.41	1000.0
6000	8.7	10.32	1000.0
6250	9.1	10.36	1000.0
6500	9.4	10.25	1000.0
6750	9.5	10.00	1000.0
7000	9.7	9.87	1000.0
7250	9.9	9.70	1000.0
7500	9.9	9.42	1000.0
7750	10.0	9.15	1000.0
8000	10.0	8.88	1000.0
8250	10.0	8.97	1000.0
8241	10.0	8.97	1000.0

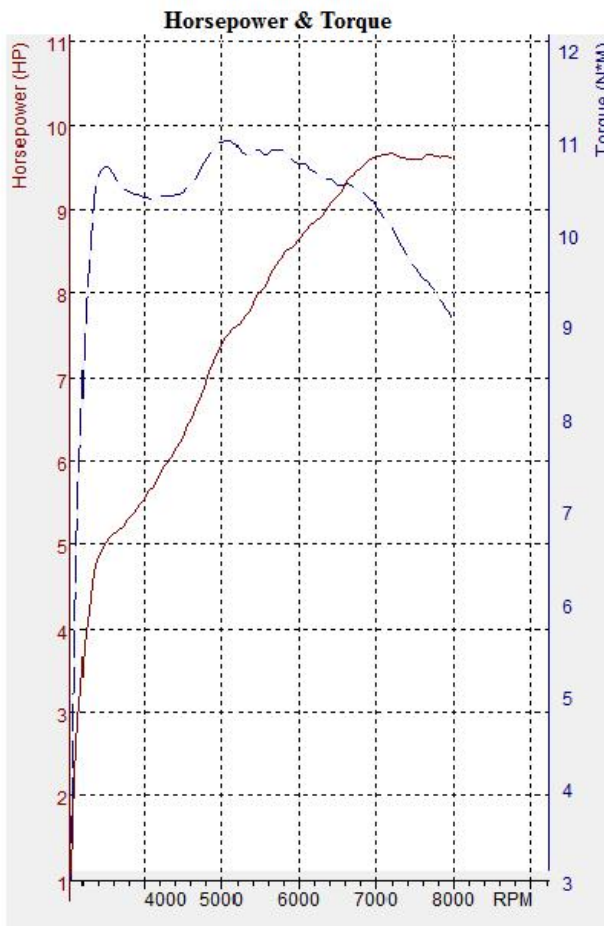
Wheel 10.0 HP 10.7 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 10.0HP 10.66N\*M





SportDyno-Ver date: 28-JUN-2019 (4.0.35.1)  
 DYNAMOMETER: SMK PGRI 2 BADUNG  
 Correction Factor: EC95 -1  
 Power: HP (mechanic)

Name	HP/RPM	N*M/RPM	KMH	Temp. (°C)	Humidity (%)	Pressure (mbar)	Date/Time
UNDIKSHA_194	9.7 / 7158	10.50 / 5078	102.5	25.0	60	1000.0	28/04/2021 13:16:09



DATA FOR TEST: UNDIKSHA\_194

RPM	HP (HP)	TQ (N*M)	Termol (T C-A) (°C)
3250	4.1	8.94	1000.0
3500	5.0	10.24	1000.0
3750	5.3	9.97	1000.0
4000	5.6	9.89	1000.0
4250	5.9	9.91	1000.0
4500	6.3	9.96	1000.0
4750	6.8	10.24	1000.0
5000	7.4	10.48	1000.0
<b>5078</b>	<b>7.5</b>	<b>10.50</b>	1000.0
5250	7.7	10.37	1000.0
5500	8.0	10.37	1000.0
5750	8.4	10.41	1000.0
6000	8.7	10.26	1000.0
6250	8.9	10.12	1000.0
6500	9.2	10.03	1000.0
6750	9.5	9.97	1000.0
7000	9.6	9.77	1000.0
<b>7158</b>	<b>9.7</b>	9.60	1000.0
7250	9.6	9.43	1000.0
7500	9.6	9.11	1000.0
7750	9.6	8.84	1000.0
8000	9.6	8.58	1000.0
8250	9.6	8.58	1000.0

Wheel 9.7 HP 10.5 N\*M  
 LOSSES 0.0 HP 0.0N\*M  
 TOTAL ENGINE: 9.7HP 10.50N\*M





## 6. Hasil Pengujian Konsumsi Bahan Bakar

TABEL DATA PENGUJIAN KONSUMSI BAHAN BAKAR

RPM	A1 (ml/g)	A2 (ml/g)	A3 (ml/g)
3000	75,61	97,54	90,98
	75,47	95,27	92,76
	76,41	96,64	93,12
	78,09	95,98	92,53
	77,25	96,52	92,22
Rata-rata			
4000	56,02	66,84	53,94
	59,50	64,14	51,15
	55,41	66,56	53,76
	52,97	65,22	52,32
	54,03	64,71	53,41
Rata-rata			
5000	49,44	56,81	50,92
	44,84	58,62	52,69
	49,90	56,48	51,73
	45,17	57,08	50,55
	44,56	57,53	50,66
Rata-rata			
6000	38,90	54,03	45,78
	36,65	52,98	44,59
	36,87	53,77	46,06
	37,23	53,29	45,59
	38,04	53,51	45,39
Rata-rata			
7000	25,74	46,87	41,82
	25,98	48,26	40,98
	28,92	45,02	40,80
	29,07	46,13	41,56
	27,58	44,75	39,98
Rata-rata			
8000	21,96	37,87	36,87
	20,75	35,81	36,48
	20,94	36,23	35,77
	21,22	36,55	34,91
	20,59	37,04	35,54
Rata-rata			

## RIWAYAT HIDUP



**I Putu Budi Artayasa**, Lahir di Tejabukit, 04 November 1998. Penulis lahir dari pasangan suami istri I Ketut Mika dan Ni Ketut Parwati, penulis beragama Hindu, dan berkebangsaan Indonesia. Penulis berasal dari Banjar Dinas Selekses, Desa Bantiran, Kecamatan Pupuan, Kabupaten Tabanan, Provinsi Bali. Penulis Menyelesaikan pendidikan Sekolah Dasar di SD No 2 Bantiran, dan lulus pada tahun 2011. Kemudian melanjutkan pendidikan Sekolah Menengah Pertama di SMP Negeri 1 Pupuan, lulus pada tahun 2014, dan pada tahun 2017 penulis lulus dari SMK Negeri 3 Singaraja mengambil jurusan Teknik Kendaraan Ringan. Sekarang penulis melanjutkan pendidikan strata 1 Program Studi Pendidikan Teknik Mesin, jurusan Teknologi Industri, Fakultas Teknik dan Kejuruan, Universitas Pendidikan Undiksha Singaraja, semester 8 tahun 2021. Penulis telah menyelesaikan Skripsi yang berjudul “Pengaruh Variasi Diameter Kawat Tembaga Pada Sistem Bahan Bakar Terhadap Performansi Motor Bensin 4 Langkah”