

# LAMPIRAN



UNIVERSITAS MUHAMMADIYAH SURABAYA  
 FAKULTAS TEKNIK  
 PROGRAM STUDI S-1 TEKNIK MESIN, S-1 TEKNIK ARSITEKTUR, S-1 TEKNIK  
 SIPIL, S-1 TEKNIK PERKAPALAN, S-1 TEKNIK ELEKTRO, D-3 TEKNIK  
 KOMPUTER

Alamat : Jalan Sutorejo 59 Surabaya  
 Telp./Fax. 031-3811966 ext.138

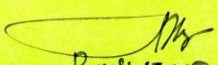
## CATATAN BIMBINGAN SKRIPSI / TA

Nama : ALWI DARUL QUDSI  
 NIM : 20151331018  
 Judul Skripsi : PENGARUH PERUBAHAN DERAJAT KEMIRINGAN SUBUT PALLY <sup>THD</sup> PERFOR  
 Pembimbing Pendamping : PONIDI, S.T., M.T.  
 Mulai Bimbingan : 09-10-2019

No.	Tgl	Materi	Paraf Pembimbing		Paraf Mahasiswa
			U*	P**	
1	09/10	Pengajuan judul Proposal + Revisi	<i>[Signature]</i>		
2	11/10	Proposal Acc + Bab I	<i>[Signature]</i>		
3	18/10	ACC Bab I	<i>[Signature]</i>		
4	25/10	Bab II + Revisi	<i>[Signature]</i>		
5	01/11	ACC Bab II + Bab III	<i>[Signature]</i>		
6	08/11	Bab III Revisi	<i>[Signature]</i>		
7	15/11	ACC Bab III + Bab IV	<i>[Signature]</i>		
8	22/11	Bab IV Revisi	<i>[Signature]</i>		
9	06/12	ACC Bab IV	<i>[Signature]</i>		
10					
11					
12					
13					
14					

Bimbingan dinyatakan selesai

Surabaya, .....

Pembimbing Utama Ditandatangani ketika skripsi/TA tuntas   (.....)	Pembimbing Pendamping Ditandatangani ketika skripsi/TA tuntas  (.....)
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**UNIVERSITAS MUHAMMADIYAH SURABAYA**  
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**ENDORSEMENT LETTER**

025/PB-Ums/EL/1/2020

This letter is to certify that the abstract of the thesis below

Title : The Influence of Pulley Angle Slope Change and Roller Variation to The Performance of Honda Scoopy FI ESP Motor Matic in 2016

Student's name : Alwi Darul Qudsi

Reg. Number : 20151331018

Department : S1 Teknik Mesin

has been endorsed by Pusat Bahasa *UMSurabaya* for further approval by the examining committee of the faculty.

Surabaya, 24 January 2020

Chair

Waode Hamsia, M.Pd



SURAT KETERANGAN BUKTI BEBAS PLAGIASI

Naskah tugas akhir / skripsi / karya tulis / tesis\*) yang diserahkan atas :

Nama : Alwi DARUL QUSI  
NIM : 2015.133.10.18  
Fakultas/Jurusan : Teknik Mesin  
Alamat : Vanagiah wetan, Wungpanglah Gresik  
Judul : Pengaruh Perubahan Derajat Kemiringan Sudut Pulley Dan Variasi Roller Terhadap Perotoma Pada motor matic Honda scoopy FI 150 cc  
telah diserahkan dan memenuhi kriteria batas maksimal yang sudah ditentukan.

Petugas perpustakaan

M. Ardi S.

Surabaya, 23 Desember 2019  
Mahasiswa,

Alwi Darul Qusi



Mengetahui,  
Kepala Perpustakaan

Dra. Mas'udah, M.A.

\*) Coret yang tidak perlu

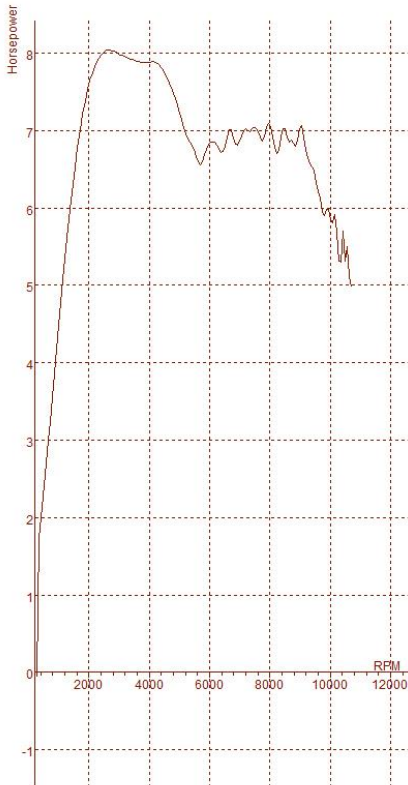
# Hasil Tes Dynamax Pulley & Roller Standart



SPORTDYNO-Ver date: 10-APR-2018 (3.8.4E)  
 DYNAMOMETER: SD\_325  
 ROLLER INERTIA: 4.6

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

Name	HP/rpm	N*M/rpm	KMH	Temp. (C)	Humidity (%)	Pressure (mbar)	Date/Time
STANDART	8.0 (8.0) / 2716	30.64 (30.64) / 1330	114.4	25.0	60	1000.0	18/11/2019 20:50:46



## DATA FOR TEST: STANDART

RPM	HP (HP)	TQ (N*M)	EXHAUST 1 (C)	EXHAUST 1 (C)
500	2.3	24.12	1000.0	1000.0
750	3.2	27.25	1000.0	1000.0
1000	4.4	29.73	1000.0	1000.0
1250	5.5	30.59	1000.0	1000.0
1330	5.7	30.64	1000.0	1000.0
1500	6.4	30.30	1000.0	1000.0
1750	7.1	28.94	1000.0	1000.0
2000	7.5	27.43	1000.0	1000.0
2250	7.9	24.91	1000.0	1000.0
2500	8.0	22.88	1000.0	1000.0
2716	8.0	21.32	1000.0	1000.0
2750	8.0	20.84	1000.0	1000.0
3000	8.0	19.13	1000.0	1000.0
3250	7.9	17.33	1000.0	1000.0
3500	7.9	16.08	1000.0	1000.0
3750	7.9	14.97	1000.0	1000.0
4000	7.9	14.04	1000.0	1000.0
4250	7.9	13.11	1000.0	1000.0
4500	7.8	12.30	1000.0	1000.0
4750	7.5	11.25	1000.0	1000.0
5000	7.2	10.27	1000.0	1000.0
5250	6.9	9.38	1000.0	1000.0
5500	6.7	8.69	1000.0	1000.0
5750	6.6	8.15	1000.0	1000.0
6000	6.8	8.12	1000.0	1000.0
6250	6.8	7.77	1000.0	1000.0
6500	6.8	7.42	1000.0	1000.0
6750	7.0	7.38	1000.0	1000.0
7000	6.9	6.98	1000.0	1000.0
7250	7.0	6.87	1000.0	1000.0
7500	7.0	6.67	1000.0	1000.0
7750	6.9	6.30	1000.0	1000.0
8000	7.1	6.28	1000.0	1000.0
8250	6.7	5.78	1000.0	1000.0
8500	7.0	5.87	1000.0	1000.0
8750	6.9	5.59	1000.0	1000.0
9000	7.1	5.58	1000.0	1000.0
9250	6.7	5.12	1000.0	1000.0
9500	6.4	4.78	1000.0	1000.0
9750	5.9	4.32	1000.0	1000.0
10000	5.8	4.16	1000.0	1000.0
10250	5.7	3.94	1000.0	1000.0
10500	5.3	3.58	1000.0	1000.0
10750	0.0	0.00	1000.0	1000.0

WHEEL 8.0 HP 30.6 N\*M  
 LOSSES 0.0 HP 0.0 N\*M  
 TOTAL ENGINE: 8.0 HP 30.64 N\*M

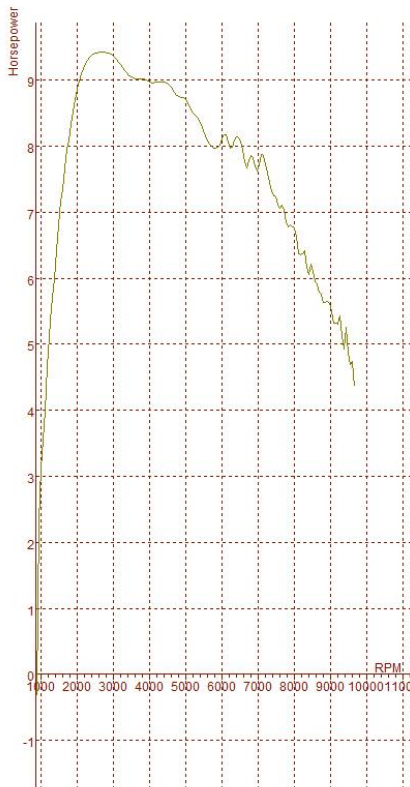
# Hasil Tes Dynamax Pulley Modifikasi & Roller 10 Gram



SPORTDYNO-Ver date: 10-APR-2018 (3.8.46)  
 DYNAMOMETER: SD\_325  
 ROLLER INERTIA: 4.6

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

Name	HP/rpm	N*M/rpm	KMH	Temp. (C)	Humidity (%)	Pressure (mbar)	Date/Time
PULLEY MODIF ROLLER 10 GRAM	8.4 (9.4) 2682	32.37 (32.37) / 1750	128.2	25.0	60	1000.0	18/11/2019 22:16:32



DATA FOR TEST: PULLEY MODIF ROLLER 10 GRAM

RPM	HP (HP)	TQ EXHAUST 1 (N*M)	EXHAUST 1 (C)	EXHAUST 1 (C)
1000	5.1	20.04	1000.0	1000.0
1250	5.1	27.66	1000.0	1000.0
1500	6.8	31.44	1000.0	1000.0
1750	8.0	32.37	1000.0	1000.0
1750	8.0	32.37	1000.0	1000.0
2000	8.8	31.50	1000.0	1000.0
2250	9.2	29.40	1000.0	1000.0
2500	9.4	26.81	1000.0	1000.0
2682	9.4	25.17	1000.0	1000.0
2750	9.4	24.33	1000.0	1000.0
3000	9.4	22.30	1000.0	1000.0
3250	9.2	20.18	1000.0	1000.0
3500	9.0	18.42	1000.0	1000.0
3750	9.0	17.18	1000.0	1000.0
4000	9.0	15.97	1000.0	1000.0
4250	9.0	15.00	1000.0	1000.0
4500	8.9	14.11	1000.0	1000.0
4750	8.8	13.13	1000.0	1000.0
5000	8.7	12.40	1000.0	1000.0
5250	8.5	11.48	1000.0	1000.0
5500	8.2	10.64	1000.0	1000.0
5750	8.0	9.85	1000.0	1000.0
6000	8.1	9.60	1000.0	1000.0
6250	8.0	9.06	1000.0	1000.0
6500	8.1	8.84	1000.0	1000.0
6750	7.8	8.21	1000.0	1000.0
7000	7.6	7.77	1000.0	1000.0
7250	7.6	7.47	1000.0	1000.0
7500	7.2	6.86	1000.0	1000.0
7750	6.9	6.36	1000.0	1000.0
8000	6.8	6.00	1000.0	1000.0
8250	6.4	5.52	1000.0	1000.0
8500	6.2	5.18	1000.0	1000.0
8750	5.7	4.67	1000.0	1000.0
9000	5.6	4.41	1000.0	1000.0
9250	5.4	4.18	1000.0	1000.0
9500	4.7	3.52	1000.0	1000.0
9750	0.0	0.00	1000.0	1000.0

WHEEL	9.4 HP	32.4 N*M
LOSSES	0.0 HP	0.0 N*M
TOTAL ENGINE:	9.4 HP	32.37 N*M



# Hasil Tes Dynamax Pulley Modifikasi & Roller 13 Gram



SPORTDYNO-Ver date: 10-APR-2018 (3.8.46)

DYNAMOMETER: SD\_325

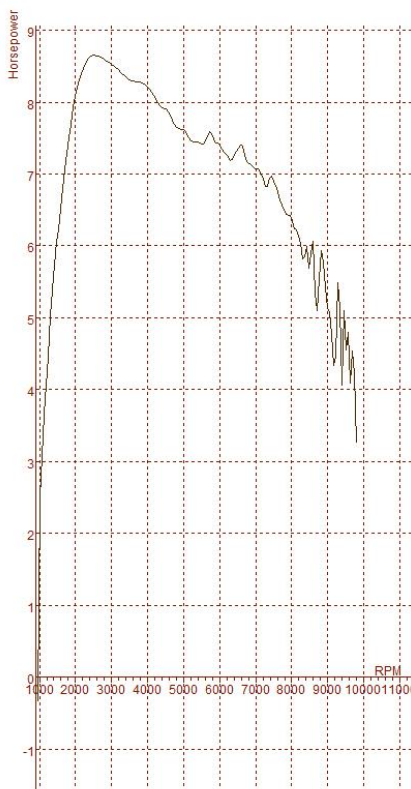
ROLLER INERTIA: 4,6

Displacement Correction

Correction Factor: ISO 1585

NOTE: Load Cell Included.

Name	HP/rpm	N*M/rpm	KMH	Temp. (C)	Humidity (%)	Pressure (mbar)	Date/Time
PULLEY MODIF ROLLER 13 GRA M	8.7 (8.7) / 2543	29.25 (29.25) / 1778	129.2	25.0	60	1000.0	18/11/2019 21:37:46



DATA FOR TEST: PULLEY MODIF ROLLER 13 GRAM

RPM	HP (HP)	TQ EXHAUST 1 (N*M)	EXHAUST 1 (C)	EXHAUST 1 (C)
1000	2.3	15.02	1000.0	1000.0
1250	4.5	24.26	1000.0	1000.0
1500	6.1	28.20	1000.0	1000.0
1750	7.3	29.25	1000.0	1000.0
1778	7.3	29.25	1000.0	1000.0
2000	8.1	28.53	1000.0	1000.0
2250	8.5	26.94	1000.0	1000.0
2500	8.6	24.78	1000.0	1000.0
2543	8.7	24.35	1000.0	1000.0
2750	8.6	22.33	1000.0	1000.0
3000	8.5	20.25	1000.0	1000.0
3250	8.4	18.46	1000.0	1000.0
3500	8.3	16.86	1000.0	1000.0
3750	8.3	15.66	1000.0	1000.0
4000	8.2	14.55	1000.0	1000.0
4250	8.0	13.42	1000.0	1000.0
4500	7.9	12.47	1000.0	1000.0
4750	7.7	11.51	1000.0	1000.0
5000	7.6	10.79	1000.0	1000.0
5250	7.4	10.09	1000.0	1000.0
5500	7.4	9.60	1000.0	1000.0
5750	7.6	9.35	1000.0	1000.0
6000	7.4	8.77	1000.0	1000.0
6250	7.2	8.22	1000.0	1000.0
6500	7.4	8.04	1000.0	1000.0
6750	7.2	7.56	1000.0	1000.0
7000	7.1	7.18	1000.0	1000.0
7250	6.9	6.77	1000.0	1000.0
7500	6.9	6.54	1000.0	1000.0
7750	6.5	5.99	1000.0	1000.0
8000	6.4	5.67	1000.0	1000.0
8250	6.0	5.20	1000.0	1000.0
8500	5.7	4.77	1000.0	1000.0
8750	5.5	4.45	1000.0	1000.0
9000	5.1	4.05	1000.0	1000.0
9250	4.8	3.68	1000.0	1000.0
9500	4.6	3.42	1000.0	1000.0
9750	4.1	2.98	1000.0	1000.0

WHEEL	8.7 HP	29.3 N*M
LOSSES	0.0 HP	0.0 N*M
TOTAL ENGINE:	8.7 HP	29.25 N*M

# Hasil Tes Dynamax Pulley Modifikasi & Roller 15 Gram



SPORTDYNO-Ver date: 10-APR-2018 (3.8.4E)

DYNAMOMETER: SD\_325

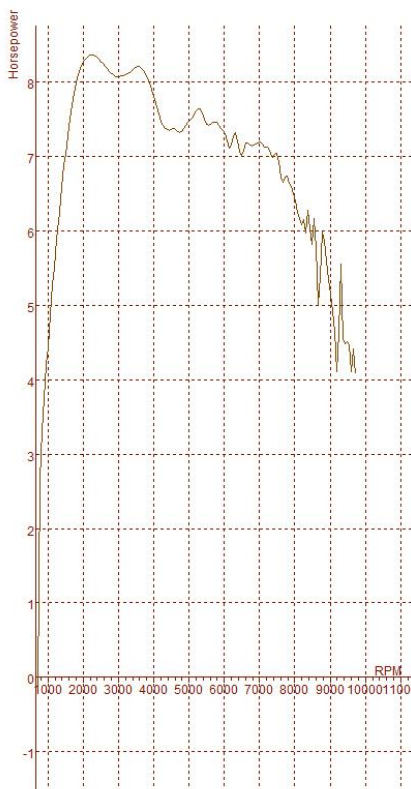
ROLLER INERTIA: 4.6

Displacement Correction

Correction Factor: ISO 1585

NOTE: Load Cell Included.

Name	HP/rpm	N*M/rpm	KMH	Temp. (C)	Humidity (%)	Pressure (mbar)	Date/Time
PULLEY MODIF ROLLER 15 GRA M	8.4 (8.4) / 2263	33.09 (33.09) / 1529	128.6	25.0	60	1000.0	18/11/2019 20:52:32



DATA FOR TEST: PULLEY MODIF ROLLER 15 GRAM

RPM	HP (HP)	TQ EXHAUST 1 (N*M)	EXHAUST 1 (C)	EXHAUST 1 (C)
750	2.5	18.83	1000.0	1000.0
1000	4.4	28.75	1000.0	1000.0
1250	5.9	32.27	1000.0	1000.0
1500	7.0	33.09	1000.0	1000.0
1529	7.0	33.09	1000.0	1000.0
1750	7.9	31.88	1000.0	1000.0
2000	8.2	29.64	1000.0	1000.0
2250	8.4	26.59	1000.0	1000.0
2263	8.4	26.59	1000.0	1000.0
2500	8.3	23.67	1000.0	1000.0
2750	8.1	21.00	1000.0	1000.0
3000	8.1	19.17	1000.0	1000.0
3250	8.1	17.75	1000.0	1000.0
3500	8.2	16.64	1000.0	1000.0
3750	8.1	15.30	1000.0	1000.0
4000	7.8	13.81	1000.0	1000.0
4250	7.4	12.42	1000.0	1000.0
4500	7.4	11.65	1000.0	1000.0
4750	7.3	10.98	1000.0	1000.0
5000	7.5	10.63	1000.0	1000.0
5250	7.6	10.33	1000.0	1000.0
5500	7.4	9.60	1000.0	1000.0
5750	7.5	9.25	1000.0	1000.0
6000	7.3	8.67	1000.0	1000.0
6250	7.3	8.28	1000.0	1000.0
6500	7.0	7.69	1000.0	1000.0
6750	7.2	7.54	1000.0	1000.0
7000	7.2	7.31	1000.0	1000.0
7250	7.1	6.97	1000.0	1000.0
7500	7.0	6.66	1000.0	1000.0
7750	6.7	6.18	1000.0	1000.0
8000	6.4	5.74	1000.0	1000.0
8250	6.1	5.29	1000.0	1000.0
8500	6.0	4.99	1000.0	1000.0
8750	5.6	4.59	1000.0	1000.0
9000	5.2	4.12	1000.0	1000.0
9250	4.7	3.62	1000.0	1000.0
9500	4.1	3.09	1000.0	1000.0
9750	0.0	0.00	1000.0	1000.0

WHEEL	8.4 HP	33.1 N*M
LOSSES	0.0 HP	0.0 N*M
<b>TOTAL ENGINE:</b>	<b>8.4 HP</b>	<b>33.09 N*M</b>