

## LAMPIRAN

**Tabel.** Pengujian Viskositas MPX2 Pertama

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	MPX2 Temp Kamar	1	3	4,9	28,5	98
		1	9	10,2	28,5	102
		1	12	20,9	28,5	104,5
		1	30	52,8	28,5	105,6
		1	60	99,9	28,5	99,9
2	MPX2 Temp.	1	3	3,7	33,6	74
		1	9	8,5	33,5	85
		1	12	16,4	33,3	82
		1	30	41,5	33,2	83
		1	60	83,6	33,2	83,6
3	MPX2 Temp.	1	3	2,5	43,6	50
		1	9	5,7	43,3	57
		1	12	10,2	43,1	51
		1	30	25,8	43	51,6
		1	60	52,6	43	52,6
4	MPX2 Temp.	1	3	2,3	52,1	46
		1	9	4,2	52,2	42
		1	12	7	51,9	35
		1	30	18,4	51,6	35
		1	60	37,9	51,5	36,9
5	MPX2 Temp.	1	3	1,8	60,2	37,9
		1	9	2,6	60,3	26
		1	12	5,2	60,2	26
		1	30	13,4	60,1	26,8
		1	60	27,8	60,1	27,8

**Tabel. Pengujian Viskositas MPX2 Kedua**

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	MPX2 Temp Kamar	1	3	5	29,1	100
			6	10,1	29,3	101
			12	20,5	29,4	102,5
			30	51,6	29,5	103,2
			60	99,9	29,5	99,9
2	MPX2 Temp ± 30°C	1	3	3,3	34,5	66
			6	8	34,4	80
			12	15,9	34,1	79,5
			30	39,9	33,9	79,9
			60	79,6	33,9	79,6
3	MPX2 Temp ± 40°C	1	3	2,5	43,7	50
			6	5,9	43,5	59
			12	11	43,3	55
			30	26,3	43	52,6
			60	54,2	43	54,2
4	MPX2 Temp ± 50°C	1	3	2,5	52,5	50
			6	4,3	52,4	43
			12	7,2	51,5	36
			30	19,3	51	38,6
			60	39,8	51	39,8
5	MPX2 Temp ± 60°C	1	3	1,9	61,7	36
			6	3,3	61,5	33
			12	4,8	61,2	24
			30	13,2	60,9	26,4
			60	26,8	60,9	26,8

**Tabel.** Pengujian Viskositas MPX2 Ketiga

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	MPX2 Temp Kamar	1	3	4,7	29,8	96
			6	9,9	29,7	99
			12	19,9	29,8	99,5
			30	50,1	29,9	102,2
			60	99,6	30	99,6
2	MPX2 Temp ± 30°C	1	3	4,4	33,7	88
			6	7,8	33,7	78
			12	16,2	33,6	81
			30	40,8	33,5	81,6
			60	81,2	33,5	81,2
3	MPX2 Temp ± 40°C	1	3	2,9	42,6	58
			6	6	42,4	60
			12	11,3	42,2	56,5
			30	28,2	42	56,4
			60	57,8	41,8	57,8
4	MPX2 Temp ± 50°C	1	3	2,1	53,8	42
			6	3,9	53,6	39
			12	6,8	53,5	34
			30	17,5	53,3	35
			60	34,9	53,3	34,9
5	MPX2 Temp ± 60°C	1	3	2,1	62,6	42
			6	3,5	62	35
			12	4,5	61,7	22,5
			30	12,8	61,6	25,6
			60	29	61,6	26

**Tabel.** Pengujian Viskositas BM1 Pertama

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	BM 1 Temp Kamar	1	3	7,7	28,7	154
		1	9	15,9	28,7	159
		1	12	32,1	28,7	160,5
		1	30	80,6	28,7	161,2
		1	60			
2	BM 1 Temp.	1	3	5,5	33,9	110
		1	9	11,4	33,7	114
		1	12	23,8	33,6	119
		1	30	60,9	33,5	121,8
		1	60	99,9	33,4	99,9
3	BM 1 Temp.	1	3	4,7	40,9	93
		1	9	9,3	40,5	94
		1	12	14,8	43,3	74
		1	30	37,9	43,1	75,8
		1	60	77,7	43,1	77,7
4	BM 1 Temp.	1	3	2,9	50,7	58
		1	9	6,4	50,4	64
		1	12	11,5	50,2	57,5
		1	30	28,6	50,1	57,2
		1	60	58,4	50,2	58,4
5	BM 1 Temp.	1	3	2,3	61,5	46
		1	9	4,1	61	41
		1	12	7,3	60,6	36,5
		1	30	18	60,6	37,6
		1	60	38,5	60,4	38,5

**Tabel.** Pengujian Viskositas BM1 Kedua

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	BM 1 Temp Kamar	1	3	7,4	29,5	148
			6	15,1	29,5	151
			12	30,7	29,5	153,5
			30	77,3	29,5	153,5
			60			
2	BM 1 Temp ± 30°c	1	3	6,1	34,6	122
			6	12,3	34,5	123
			12	24,8	34,5	124
			30	62,4	33,4	124,8
			60			
3	BM 1 Temp ± 40°c	1	3	3,7	43,2	74
			6	8	43,2	80
			12	15,9	43,1	79,5
			30	40,2	43,1	80,4
			60	80,6	42,9	80,6
4	BM 1 Temp ± 50°c	1	3	2,8	54	56
			6	5,4	53,7	54
			12	10,1	53,4	50,5
			30	26,1	53,2	52,2
			60	53,8	53,2	53,8
5	BM 1 Temp ± 60°c	1	3	2,4	62,4	48
			6	4,1	62,2	41
			12	7,2	61,9	36
			30	18,2	61,5	37,4
			60	38,1	61,7	38,1

**Tabel. Pengujian Viskositas BM1 Ketiga**

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	BM 1 Temp Kamar	1	3	7,4	29,6	148
			6	15,1	29,6	151
			12	30,7	29,6	153,5
			30	77,2	29,6	154,4
			60			
2	BM 1 Temp ± 30°C	1	3	6	33,3	120
			6	12,2	33,2	122
			12	24,8	33,2	124
			30	62,6	33,2	125,2
			60			
3	BM 1 Temp ± 40°C	1	3	3,9	42,8	78
			6	8,2	42,6	82
			12	16,4	42,4	82
			30	41,6	42,2	83,4
			60	84,8	42,1	84,8
4	BM 1 Temp ± 50°C	1	3	2,9	51,9	58
			6	5,7	51,5	57
			12	10,9	51,3	54,5
			30	28,1	51,1	54,6
			60	58	51,1	58
5	BM 1 Temp ± 60°C	1	3	2	60	46
			6	3,7	62	39
			12	6,3	62,6	36,7
			30	13,6	62,5	37
			60	38,3	61,4	38,3

**Tabel. Pengujian Viskositas Motul Pertama**

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas (mPas)
1	Motul Temp Kamar	1	3	6,8	29,6	136
		1	9	14,1	29,6	141
		1	12	28,9	29,6	144,5
		1	30	73	29,6	146
		1	60			
2	Motul Temp.	1	3	5,4	33,8	108
		1	9	11,4	33,7	114
		1	12	23,8	33,6	119
			30	60,8	33,6	121,6
		1	60	11,9	33,4	119
3	Motul Temp.	1	3	3,9	41,5	78
		1	9	8,6	41,1	86
		1	12	17,1	41	85,5
		1	30	42,9	40,9	85,8
		1	60	386	40,9	86
4	Motul Temp.	1	3	3,7	53,1	74
		1	9	6,3	53,1	63
		1	12	11	53	55
		1	30	26,6	52,5	53,2
		1	60	53,8	52,3	53,8
5	Motul Temp.	1	3	2,7	61,6	54
		1	9	4,9	61,2	49
		1	12	7,6	60,9	38
		1	30	19,3	60,6	38,6
		1	60	39,7	60,4	39,7

**Tabel.** Pengujian Viskositas Motul Kedua

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas
1	Temp. Kamar	1	3	7	29,1	140
			6	14,5	29,1	145
			12	29,9	29,1	149,5
			30	75,7	29,1	151,4
			60			
2	Temp. ± 30	1	3	6,5	31,2	130
			6	13,2	31,2	132
			12	26,7	31,2	133,5
			30	67,4	31,2	134,8
			60	100	31,2	100
3	Temp. ± 40	1	3	4	43,7	80
			6	8,3	43,7	83
			12	15,7	43,5	78,5
			30	39	43,3	78
			60	79,7	42,9	79,7
4	Temp. ± 50	1	3	3,2	53	64
			6	6,1	52,3	61
			12	10,8	51,9	54
			30	27,8	51,6	55,8
			60	57,8	51,4	57,8
5	Temp. ± 60	1	3	3,6	60,8	72
			6	7,7	60,5	77
			12	12,9	61,3	64,5
			30	32,4	61	64,6
			60	51,9	60,5	51,9



**Tabel.** Pengujian Viskositas Motul Ketiga

No	Fluida	Rotor	Speed (Rpm)	Persen (%)	Temperatur (°C)	Viskositas
1	Temp. Kamar	1	3	7,4	29,1	148
			6	14,9	29,1	149
			12	30,1	29,1	150,5
			30	75,7	29,1	151,7
			60			
2	Temp. ± 30	1	3	6,6	31,5	132
			6	13	31,5	130
			12	26,6	31,5	133
			30	67,3	31,5	134,6
			60	100	31,5	100
3	Temp. ± 40	1	3	3,7	42,7	74
			6	8,1	42,5	81
			12	16,2	42,5	81
			30	40,6	42,3	81,4
			60	83	42	83,1
4	Temp. ± 50	1	3	3,1	53,8	62
			6	5,6	53,6	56
			12	10,2	53,5	51
			30	25,3	53,1	50,6
			60	53,1	53	53,1
5	Temp. ± 60	1	3	2,5	62,8	50
			6	4,5	62	45
			12	7,3	61,4	36,5
			30	18,9	61,1	37,8
			60	39	60,8	39,1

**Tabel.** Pengujian Konduktivitas Termal Oli MPX2

Nomor Pengujian MPX 2	T1 (°C)	T2 (°C)	Tegangan Heater (Volt)	Arus Heater (A)	Daya, Qe, (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	Tebal Spesimen (m)	Luas Permukaan (m2)	K Eksperimen	Temperatur Rata-rata Spesimen (°C)
1	28,7	28,3	34	0,061	2,074	0,4	0,1	1,974	0,00034	0,0133	0,12615789	28,5
	30,3	28,6	64	0,124	7,936	1,7	0,3	7,636	0,00034	0,0133	0,11482707	29,45
	35,8	30,2	124	0,243	30,132	5,6	0,8	29,332	0,00034	0,0133	0,13390011	33
	41,9	32	168	0,317	53,256	9,9	1,4	51,856	0,00034	0,0133	0,13390324	36,95
	49,7	33	210	0,375	78,75	16,7	2,4	76,35	0,00034	0,0133	0,11687452	41,35
2	27,5	27,1	32	0,055	1,76	0,4	0,1	1,66	0,00034	0,0133	0,10609023	27,3
	29,8	28	66	0,129	8,514	1,8	0,15	8,364	0,00034	0,0133	0,11878697	28,9
	35,3	30,6	115	0,227	26,105	4,7	0,6	25,505	0,00034	0,0133	0,138725	32,95
	42,1	33,2	160	0,303	48,48	8,9	1,1	47,38	0,00034	0,0133	0,13609192	37,65
	50,5	33,4	205	0,362	74,21	17,1	1,65	72,56	0,00034	0,0133	0,1084747	41,95
3	29	28,7	29	0,05	1,45	0,3	0,1	1,35	0,00034	0,0133	0,11503759	28,85
	30,9	29,4	65	0,128	8,32	1,5	0,25	8,07	0,00034	0,0133	0,13753383	30,15
	36,2	31,3	120	0,235	28,2	4,9	0,55	27,65	0,00034	0,0133	0,14425349	33,75
	43,2	33,1	163	0,308	50,204	10,1	1,25	48,954	0,00034	0,0133	0,1239065	38,15
	50,8	34	204	0,363	74,052	16,8	1,85	72,202	0,00034	0,0133	0,10986699	42,4

**Tabel.** Pengujian Konduktivitas Termal Oli BM1

Nomor Pengujian BM 1	T1 (°C)	T2 (°C)	Tegangan Heater (Volt)	Arus Heater (A)	Daya, Qe, (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	Tebal Spesimen (m)	Luas Permukaan (m2)	K Eksperimen	Temperatur Rata-rata Spesimen (°C)
1	27,7	27,3	32	0,057	1,824	0,4	0,1	1,724	0,00034	0,0133	0,110180451	27,5
	29,8	28,1	69	0,135	9,315	1,7	0,2	9,115	0,00034	0,0133	0,137067669	28,95
	34,9	29,9	118	0,232	27,376	5	0,75	26,626	0,00034	0,0133	0,136132932	32,4
	41,2	32,1	161	0,305	49,105	9,1	1,35	47,755	0,00034	0,0133	0,134154342	36,65
	48,8	33,8	201	0,356	71,556	15	1,9	69,656	0,00034	0,0133	0,11871198	41,3
2	27,8	27,6	24	0,043	1,032	0,2	0,1	0,932	0,00034	0,0133	0,11912782	27,7
	30,1	28,4	66	0,13	8,58	1,7	0,25	8,33	0,00034	0,0133	0,125263158	29,25
	34,4	29,8	114	0,223	25,422	4,6	0,65	24,772	0,00034	0,0133	0,137667212	32,1
	40,8	32,1	158	0,298	47,084	8,7	1,25	45,834	0,00034	0,0133	0,134677729	36,45
	49,1	33,9	203	0,359	72,877	15,2	2	70,877	0,00034	0,0133	0,119203502	41,5
3	27,8	27,6	24	0,041	0,984	0,2	0,1	0,884	0,00034	0,0133	0,112992481	27,7
	30,7	29	69	0,137	9,453	1,7	0,25	9,203	0,00034	0,0133	0,138390977	29,85
	35,2	30,3	116	0,228	26,448	4,9	0,7	25,748	0,00034	0,0133	0,13433052	32,75
	41,7	32,6	161	0,304	48,944	9,1	1,3	47,644	0,00034	0,0133	0,133842518	37,15
	49,8	34	203	0,363	73,689	15,8	2,1	71,589	0,00034	0,0133	0,115828781	41,9

**Tabel. Pengujian Konduktivitas Termal Motul**

Nomor Pengujian Motul	T1 (°C)	T2 (°C)	Tegangan Heater (Volt)	Arus Heater (A)	Daya, Qe, (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	Tebal Spesimen (m)	Luas Permukaan (m <sup>2</sup> )	K Eksperimen	Temperatur Rata-rata Spesimen (°C)
1	26,7	26,5	20	0,052	1,04	0,2	0,1	0,94	0,00034	0,0133	0,12015038	26,6
	28,9	27,4	62	0,135	8,37	1,5	0,2	8,17	0,00034	0,0133	0,1392381	28,15
	33,4	28,8	110	0,232	25,52	4,6	0,55	24,97	0,00034	0,0133	0,13876757	31,1
	39,9	31,1	155	0,305	47,275	8,8	1,35	45,925	0,00034	0,0133	0,13341165	35,5
	47,7	33	200	0,36	72	14,7	2,1	69,9	0,00034	0,0133	0,121559	40,35
2	27,1	27	18	0,029	0,522	0,1	0,1	0,422	0,00034	0,0133	0,1078797	27,05
	29,2	27,6	65	0,126	8,19	1,6	0,2	7,99	0,00034	0,0133	0,12765977	28,4
	33,5	29	112	0,22	24,64	4,5	0,57	24,07	0,00034	0,0133	0,13673851	31,25
	40	30,9	160	0,301	48,16	9,1	1,4	46,76	0,00034	0,0133	0,13135917	35,45
	48	33,3	204	0,36	73,44	14,7	2,1	71,34	0,00034	0,0133	0,12406322	40,65
3	27,5	27,3	21	0,054	1,134	0,2	0,1	1,034	0,00034	0,0133	0,13216541	27,4
	29,6	28	66	0,129	8,514	1,6	0,2	8,314	0,00034	0,0133	0,13283647	28,8
	34,4	29,6	116	0,227	26,332	4,8	0,6	25,732	0,00034	0,0133	0,13704386	32
	40,7	32	158	0,299	47,242	8,7	1,35	45,892	0,00034	0,0133	0,13484815	36,35
	48,4	33,8	200	0,356	71,2	14,6	1,8	69,4	0,00034	0,0133	0,12151612	41,1

**Tabel.** Pengujian Konsumsi Bahan Bakar

No	Jenis Oli	Jarak (km)	Waktu (menit)	KBB (ml)	rata-rata	KBB/lt	KBB/lt rata-rata
1	MPX 2	4	7:51	68	0,068	58,82353	60,07
			7:50	65	0,065	61,53846	
			7:50	67	0,067	59,70149	
			7:52	66	0,066	60,60606	
			7:49	67	0,067	59,70149	
2	MOTUL	4	7:55	71	0,071	56,33803	57,00
			7:52	69	0,069	57,97101	
			7:54	69	0,069	57,97101	
			7:52	70	0,07	57,14286	
			7:51	72	0,072	55,55556	
3	BM1	4	7:53	74	0,074	54,05405	53,77
			7:50	76	0,076	52,63158	
			7:55	75	0,075	53,33333	
			7:52	74	0,074	54,05405	
			7:50	73	0,073	54,79452	

**Gambar.** Proses Pengujian Viskosiitas



**Gambar.** Proses Pemanasan Oli



**Gambar.** Pengujian Konduktivitas Termal



**Gambar.** Proses Pengujian *Dinotestt*



**Gambar.** Proses Pengambilan RPM



**Gambar.** Proses Pengambilan RPM



**Gambar.** Pengujian Koonsumsi Bahan Bakar

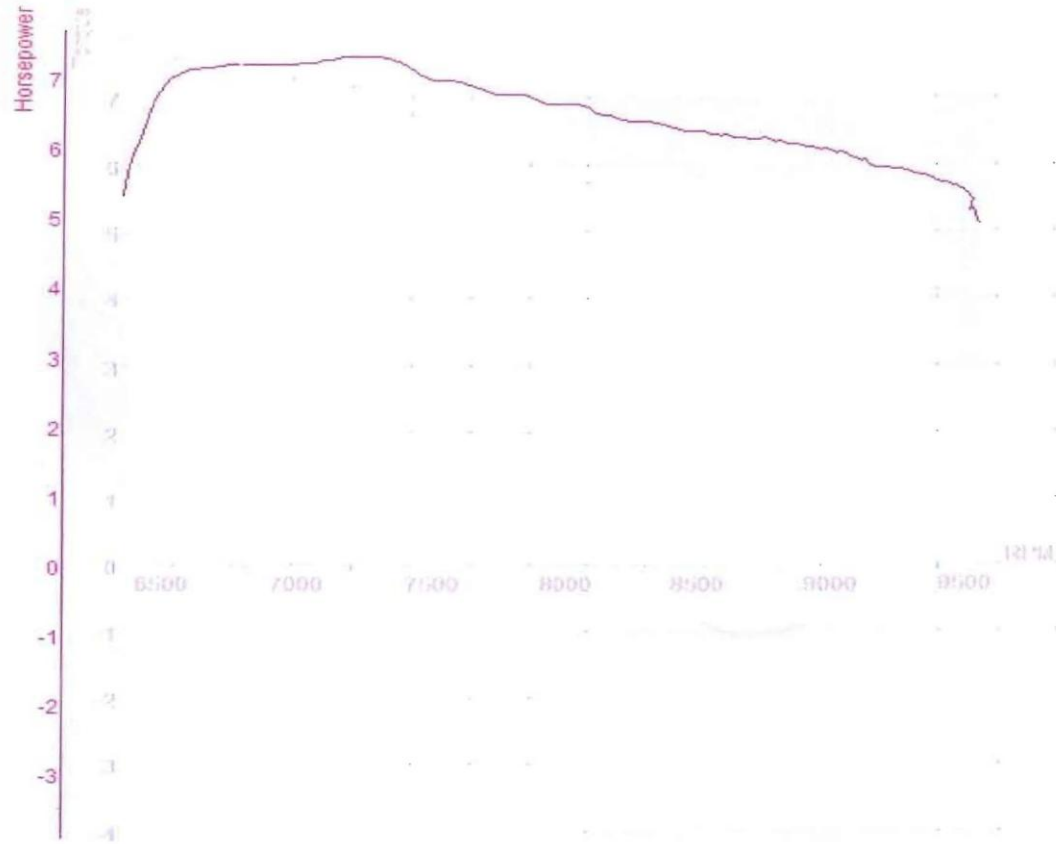


**Gambar.** Proses Prngambilan Km Awal **Gambar.** Proses Pengambilan Data Km





TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T001	7.3 (7.3) / 7262		31.4 °C	60 %	1000.0 mbar	92.2	06/04/2017 12:22:34



DATA FOR TEST: SCOOPY FI 110 T001

Comments  
STD BM 1

RPM	HP (HP)	Q (N*M*M)	T
6250	5.6	6.24	0.52
6500	6.9	7.51	0.66
6586	7.1	7.62	0.74
6750	7.2	7.52	0.92
7000	7.2	7.27	1.18
7250	7.3	7.10	1.46
7262	7.3	7.10	1.46
7500	7.0	6.56	1.74
7750	6.7	6.14	2.06
8000	6.6	5.83	2.40
8250	6.4	5.44	2.76
8500	6.2	5.17	3.14
8750	6.1	4.92	3.54
9000	5.9	4.65	3.96
9250	5.7	4.33	4.42
9500	5.4	3.99	4.92

LOSSES: 0.0 HP      0.0N\*M\*M  
TOTAL ENGINE: 7.3HP      7.62N\*M\*M

# Mototech

**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

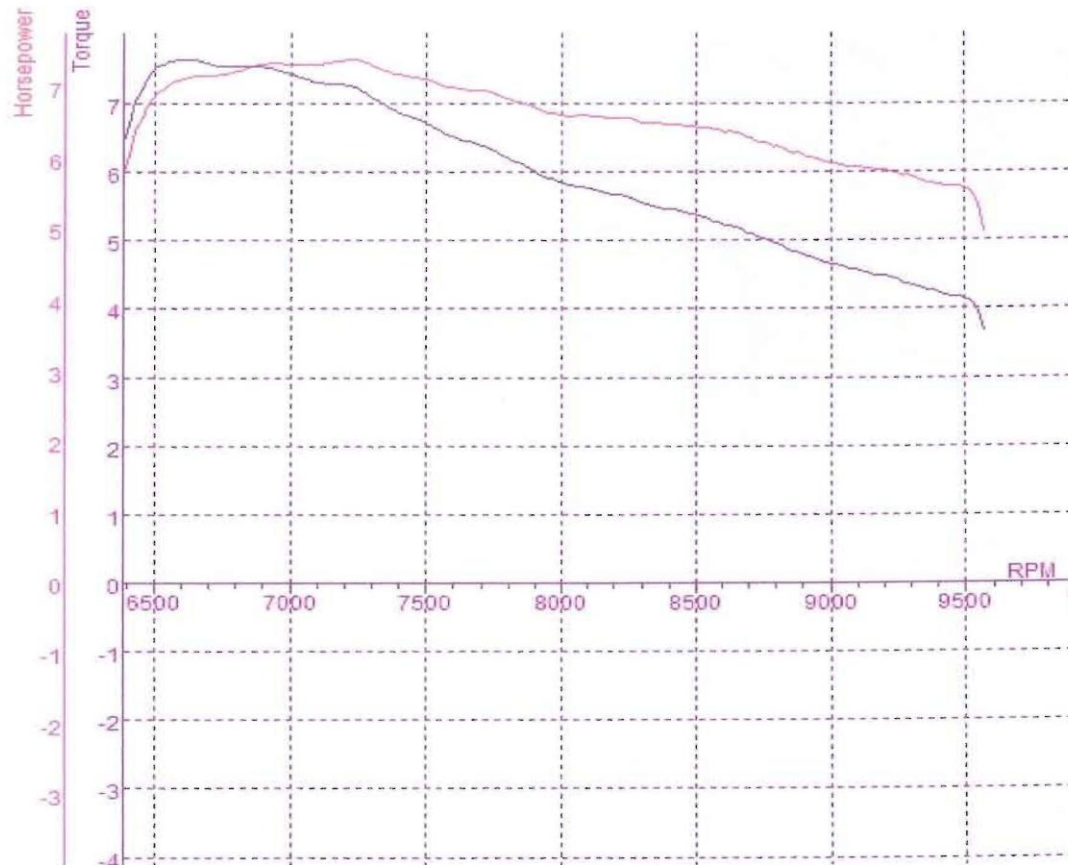
**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**ROLLER INERTIA: 1.446**

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T002	7.4 (7.4) / 7217	7.63 (7.63) / 6607	31.4 °C	60 %	1000.0 mbar	92.2	06/04/2017 12:22:51

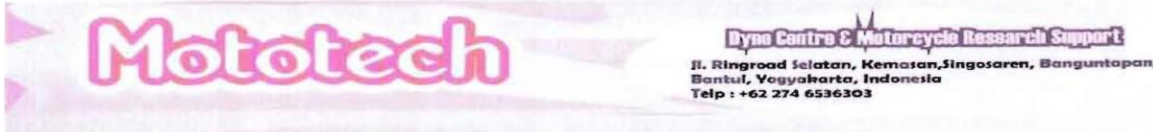
**DATA FOR TEST: SCOOPY FI 110 T002**

**Comments**  
 STD BM 1



RPM	HP (HP)	TQ (N*M*M)	T
6250	6.1	6.79	0.52
6500	6.9	7.53	0.62
6607	7.1	7.63	0.72
6750	7.2	7.53	0.88
7000	7.3	7.39	1.14
7217	7.4	7.25	1.36
7250	7.4	7.18	1.40
7500	7.1	6.67	1.70
7750	6.9	6.27	2.00
8000	6.6	5.84	2.32
8250	6.6	5.62	2.66
8500	6.4	5.35	3.02
8750	6.2	5.03	3.42
9000	5.9	4.64	3.84
9250	5.8	4.40	4.28
9500	5.5	4.12	4.76

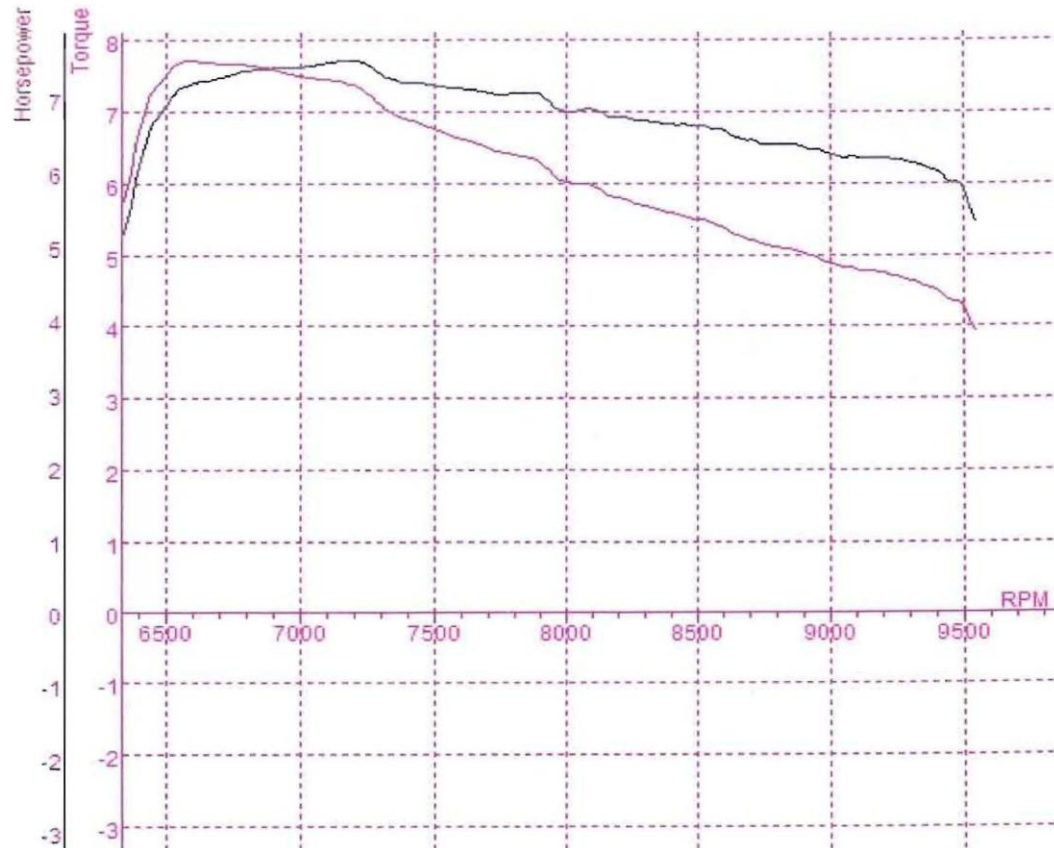
**LOSSES:** 0.0 HP    0.0N\*M\*M  
**TOTAL ENGINE:** 7.4HP    7.63N\*M\*M



SPORTDYNO V3.3  
 DYNAMOMETER: MOTOTECH  
 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
SCOOPY FI 110 T003	7.5 (7.5) / 7197	7.73 (7.73) / 6593	31.4 °C	60 %	1000.0 mbar	92.0	06/04/2017 12:23:09



DATA FOR TEST: SCOOPY FI 110 T003

Comments  
 STD BM 1

RPM	HP (HP)	Q (N*M*M)	T
6250	5.5	6.17	0.52
6500	7.0	7.62	0.66
6593	7.2	7.73	0.74
6750	7.3	7.68	0.92
7000	7.4	7.48	1.18
7197	7.5	7.38	1.36
7250	7.4	7.22	1.44
7500	7.2	6.74	1.72
7750	7.0	6.42	2.02
8000	6.8	6.01	2.32
8250	6.7	5.72	2.68
8500	6.6	5.49	3.04
8750	6.4	5.13	3.42
9000	6.2	4.88	3.82
9250	6.2	4.70	4.24
9500	5.7	4.20	4.80

LOSSES: 0.0 HP 0.0N\*M\*M  
 TOTAL ENGINE: 7.5HP 7.73N\*M\*M

# Mototech

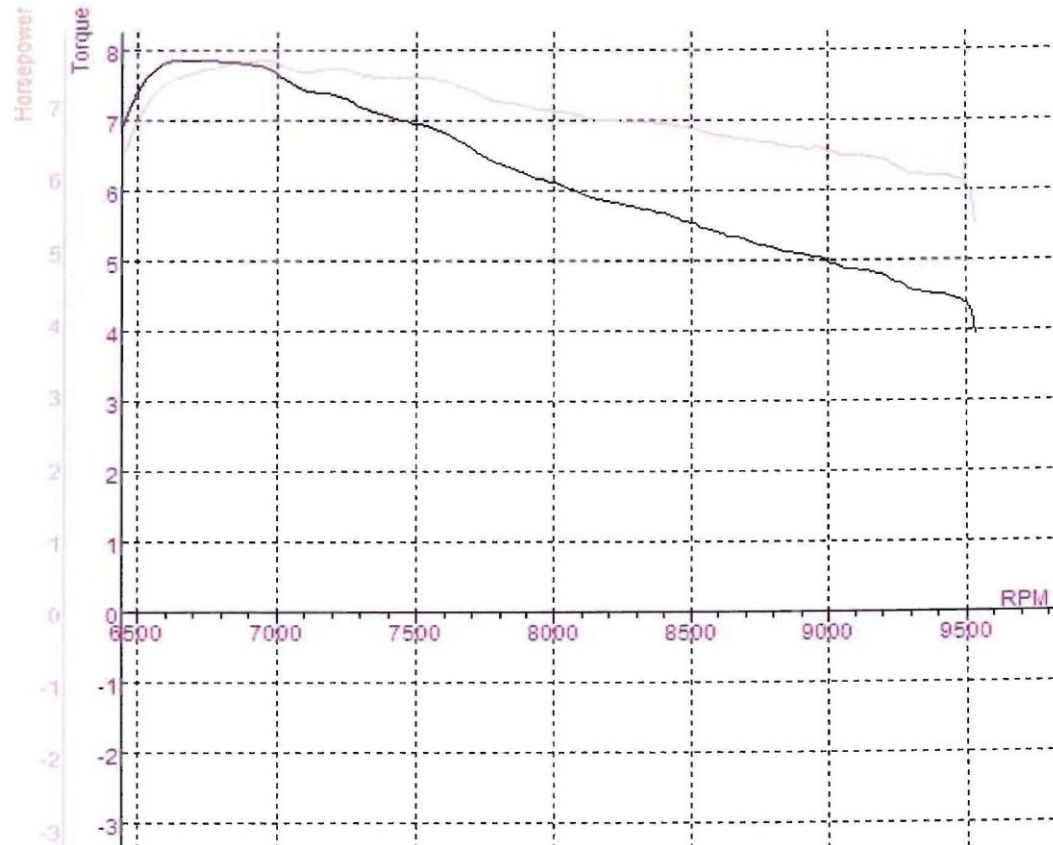
Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6936303

SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
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
SCOOPY FI 110 T004		7.85 (7.85) / 6715	31.4 °C	60 %	1000.0 mbar	91.9	06/04/2017 12:23:26



DATA FOR TEST: SCOOPY FI 110 T004

Comments  
STD BM 1

RPM	HP (HP/Q)	(N*M*M)	T
6250	6.5	7.16	0.52
6500	6.9	7.48	0.56
6715	7.4	7.85	0.76
6750	7.5	7.84	0.80
6955	7.6	7.75	1.00
7000	7.6	7.63	1.06
7250	7.5	7.28	1.32
7500	7.4	6.94	1.60
7750	7.1	6.44	1.90
8000	6.9	6.09	2.22
8250	6.8	5.79	2.54
8500	6.7	5.54	2.90
8750	6.5	5.23	3.26
9000	6.3	4.96	3.66
9250	6.1	4.67	4.08
9500	5.9	4.36	4.58

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.6HP 7.85N\*M\*M

# Mototech

Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemas, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

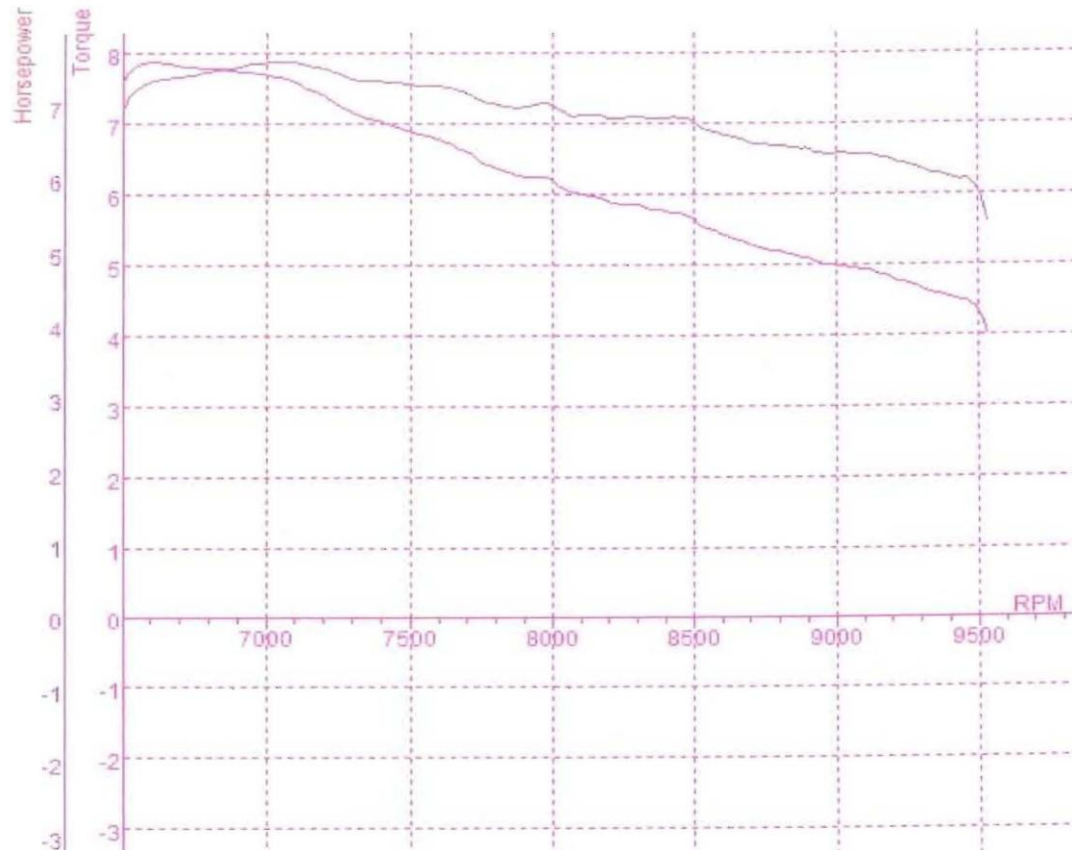
SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
ROLLER INERTIA: 1.446

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T005	7.67 (7.67) @ 7048	7.88 (7.88) @ 6611	31.4 °C	60 %	1000.0 mbar	91.8	06/04/2017 12:23:42

DATA FOR TEST: SCOOPY FI 110 T005

Comments  
STD BM 1



RPM	HP (HP)	TQ (N*M*M)	T
6250	7.1	7.74	0.52
6500	7.2	7.81	0.54
6611	7.3	7.88	0.60
6750	7.4	7.79	0.76
7000	7.6	7.68	1.00
7048	7.6	7.65	1.04
7250	7.4	7.20	1.28
7500	7.3	6.85	1.56
7750	7.1	6.45	1.84
8000	7.0	6.17	2.16
8250	6.8	5.85	2.50
8500	6.8	5.65	2.82
8750	6.5	5.22	3.20
9000	6.4	4.98	3.60
9250	6.2	4.73	4.02
9500	5.8	4.30	4.54

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.6HP 7.88N\*M\*M

# Mototech

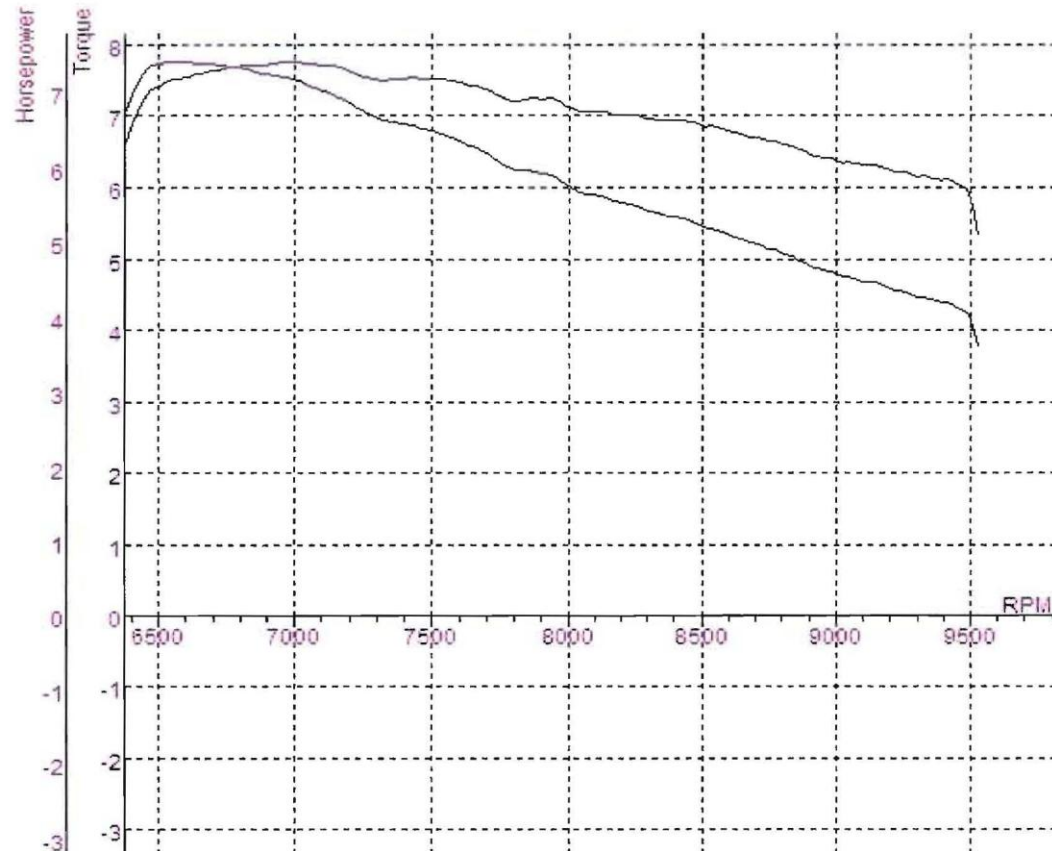
Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
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
SCOOPY FI 110 T008	7.4 (7.4) / 6974	7.76 (7.76) / 6537	31.4 °C	62 %	1000.0 mbar	91.9	06/04/2017 12:35:26



DATA FOR TEST: SCOOPY FI 110 T008

Comments  
STD MPX 2

RPM	HP (HP)	Q (N*M*M)	T
6250	6.6	7.29	0.52
6500	7.1	7.74	0.62
6537	7.2	7.76	0.66
6750	7.3	7.69	0.88
6974	7.4	7.54	1.10
7000	7.4	7.49	1.14
7250	7.2	7.01	1.42
7500	7.2	6.77	1.70
7750	6.9	6.32	2.00
8000	6.8	6.00	2.32
8250	6.7	5.74	2.66
8500	6.6	5.47	3.02
8750	6.4	5.12	3.42
9000	6.1	4.77	3.82
9250	5.9	4.53	4.24
9500	5.6	4.12	4.80

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.4HP 7.76N\*M\*M



**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

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

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

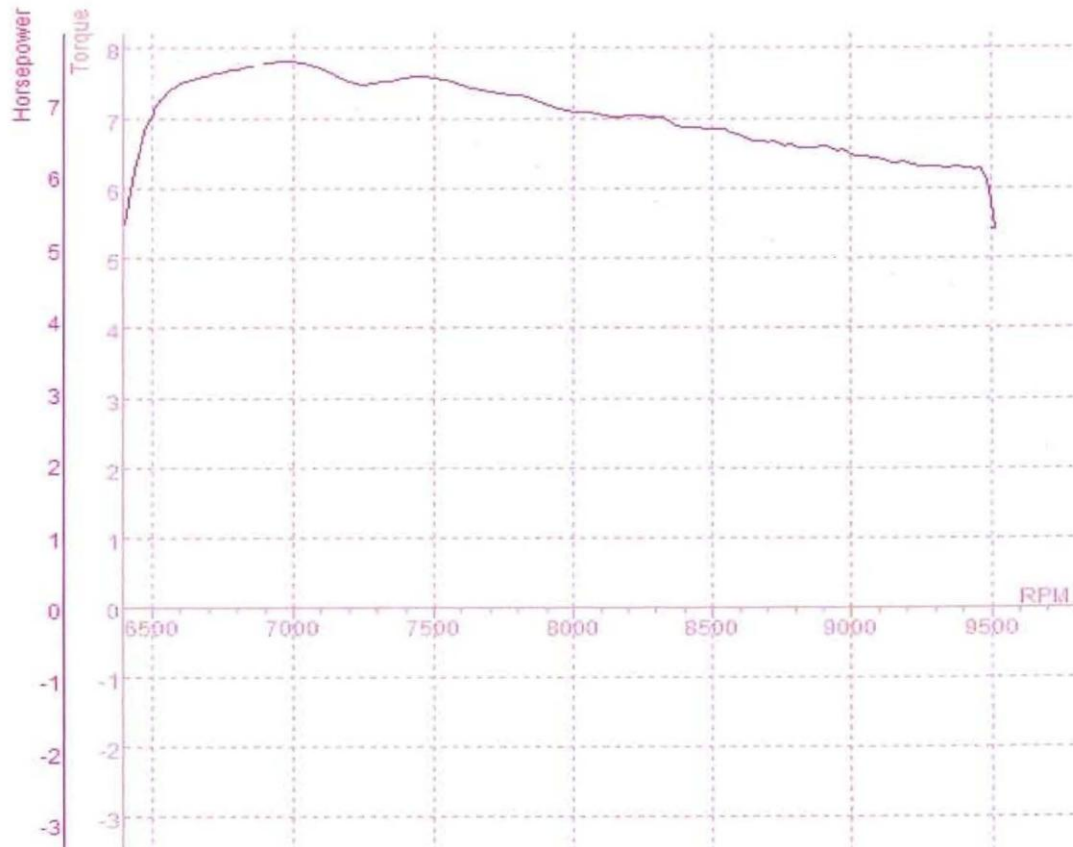
TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T009	7.6 (7.6) / 6984		31.4 °C	62 %	1000.0 mbar	91.7	06/04/2017 12:35:52

**DATA FOR TEST: SCOOPY FI 110 T009**

**Comments**  
 STD MPX 2

RPM	HP (HP@Q (N*M*M))	T
6250	5.7 6.33	0.52
6500	6.8 7.43	0.60
6685	7.4 7.82	0.78
6750	7.4 7.80	0.86
6984	7.6 7.69	1.08
7000	7.6 7.64	1.12
7250	7.3 7.09	1.38
7500	7.3 6.92	1.66
7750	7.1 6.49	1.96
8000	6.9 6.08	2.26
8250	6.8 5.83	2.62
8500	6.6 5.51	2.98
8750	6.4 5.19	3.34
9000	6.3 4.94	3.74
9250	6.1 4.67	4.18
9500	5.3 3.90	4.80

**LOSSES:** 0.0 HP 0.0N\*M\*M  
**TOTAL ENGINE:** 7.6HP 7.82N\*M\*M



# Mototech

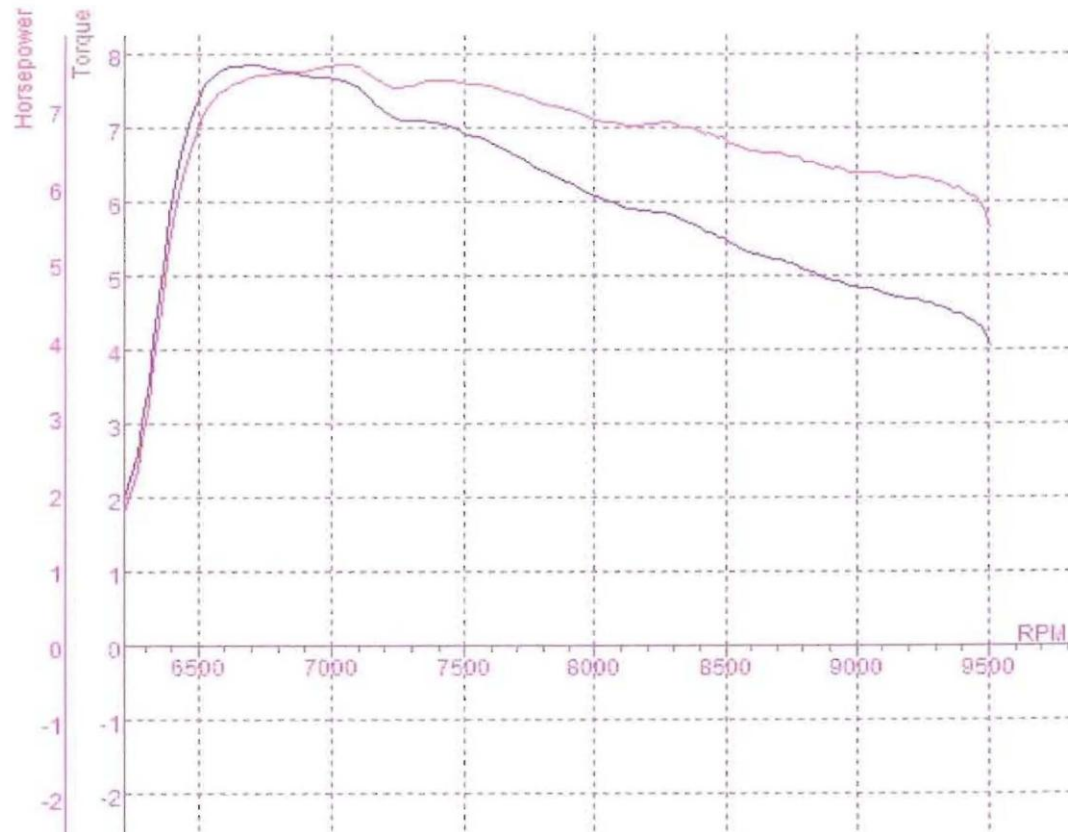
Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
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
SCOOPY FI 110 T010	7.6 (7.6) / 7058	7.86 (7.86) / 6683	31.4 °C	62 %	1000.0 mbar	91.8	06/04/2017 12:36:18



DATA FOR TEST: SCOOPY FI 110 T010

Comments  
STD MPX 2

RPM	HP (HP)	Q (N*M*M)	T
6250	2.3	2.60	0.54
6500	6.8	7.38	0.76
6683	7.4	7.86	0.94
6750	7.5	7.82	1.02
7000	7.6	7.66	1.28
7058	7.6	7.62	1.32
7250	7.3	7.11	1.54
7500	7.3	6.92	1.82
7750	7.1	6.48	2.12
8000	6.9	6.07	2.42
8250	6.8	5.86	2.76
8500	6.6	5.48	3.12
8750	6.4	5.17	3.50
9000	6.2	4.84	3.92
9250	6.1	4.65	4.34
9500	5.4	4.04	4.94

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.6HP 7.86N\*M\*M



# Mototech

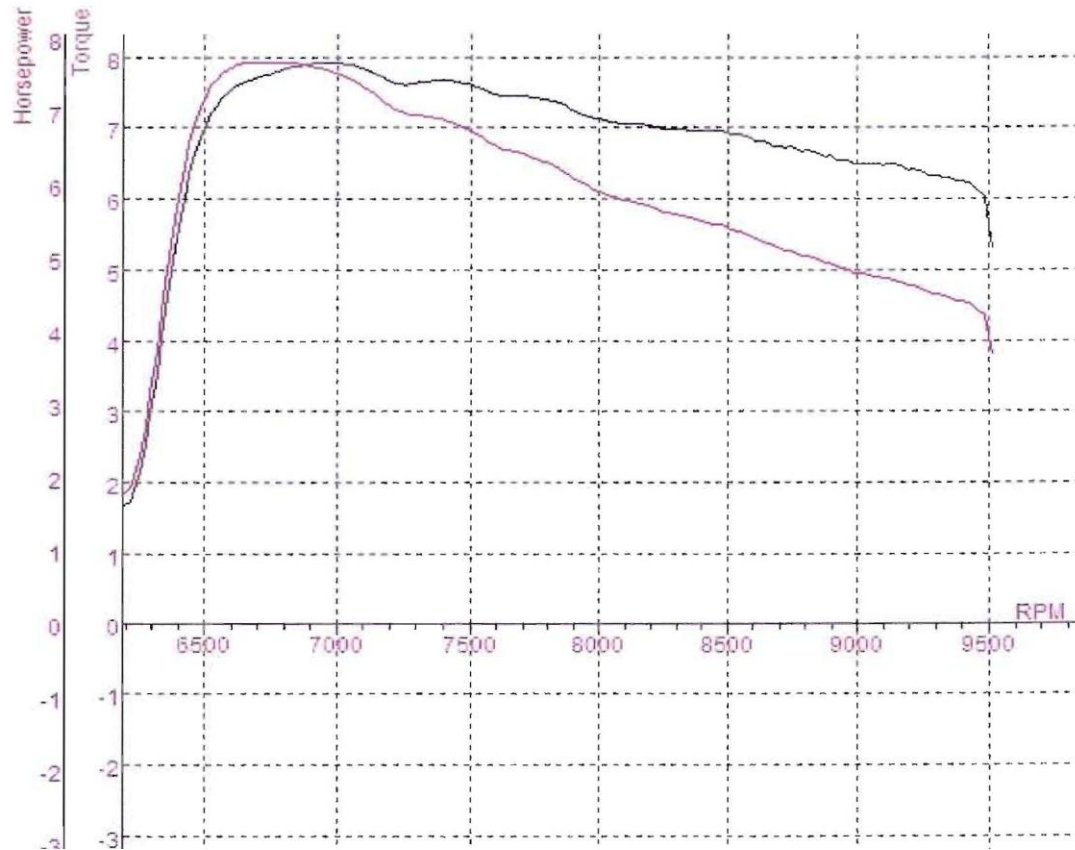
Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemasari, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
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
SCOOPY FI 110 T011	7.7 (7.7) / 6970	7.92 (7.92) / 6791	31.4 °C	62 %	1000.0 mbar	91.7	06/04/2017 12:36:53



DATA FOR TEST: SCOOPY FI 110 T011

Comments  
STD MPX 2

RPM	HP (HP)	Q (N*M*M)	T
6250	2.1	2.37	0.56
6500	6.8	7.45	0.80
6750	7.5	7.91	1.04
6791	7.6	7.92	1.08
6970	7.7	7.80	1.26
7000	7.7	7.75	1.30
7250	7.4	7.20	1.56
7500	7.4	6.94	1.84
7750	7.2	6.55	2.14
8000	6.9	6.08	2.46
8250	6.8	5.80	2.78
8500	6.7	5.57	3.14
8750	6.5	5.22	3.52
9000	6.3	4.94	3.90
9250	6.2	4.71	4.32
9500	5.4	4.04	4.94

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.7HP 7.92N\*M\*M



**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

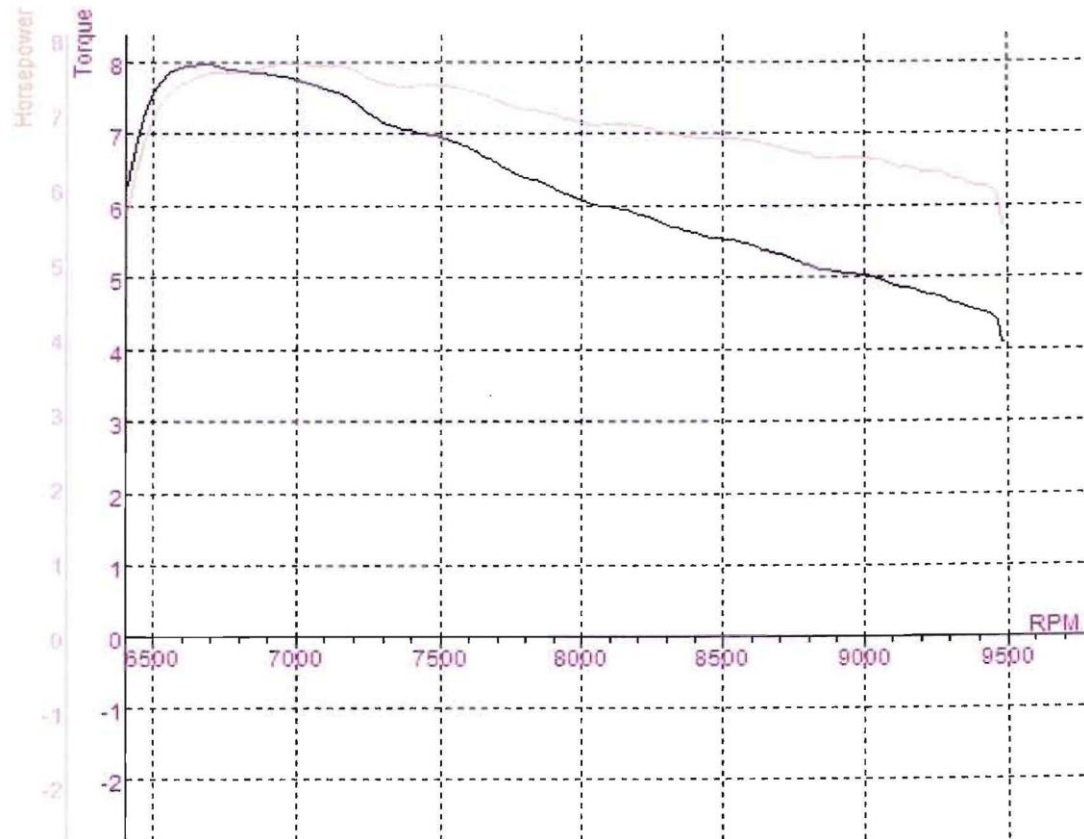
**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**ROLLER INERTIA: 1.446**

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T012		7.97 (7.97) / 6676	31.4 °C	62 %	1000.0 mbar	91.5	06/04/2017 12:37:19

**DATA FOR TEST: SCOOPY FI 110 T012**

**Comments**  
 STD MPX 2



RPM	HP (HP)	TQ (N*M*M)	T
6250	6.1	6.70	0.52
6500	7.0	7.65	0.60
6676	7.5	7.97	0.76
6750	7.5	7.91	0.84
6980	7.7	7.77	1.06
7000	7.7	7.72	1.10
7250	7.4	7.25	1.36
7500	7.4	6.94	1.64
7750	7.1	6.44	1.94
8000	6.9	6.07	2.24
8250	6.8	5.79	2.58
8500	6.7	5.53	2.92
8750	6.5	5.22	3.30
9000	6.4	5.02	3.70
9250	6.2	4.73	4.12

**LOSSES:** 0.0 HP      0.0N\*M\*M  
**TOTAL ENGINE:** 7.7HP      7.97N\*M\*M



**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

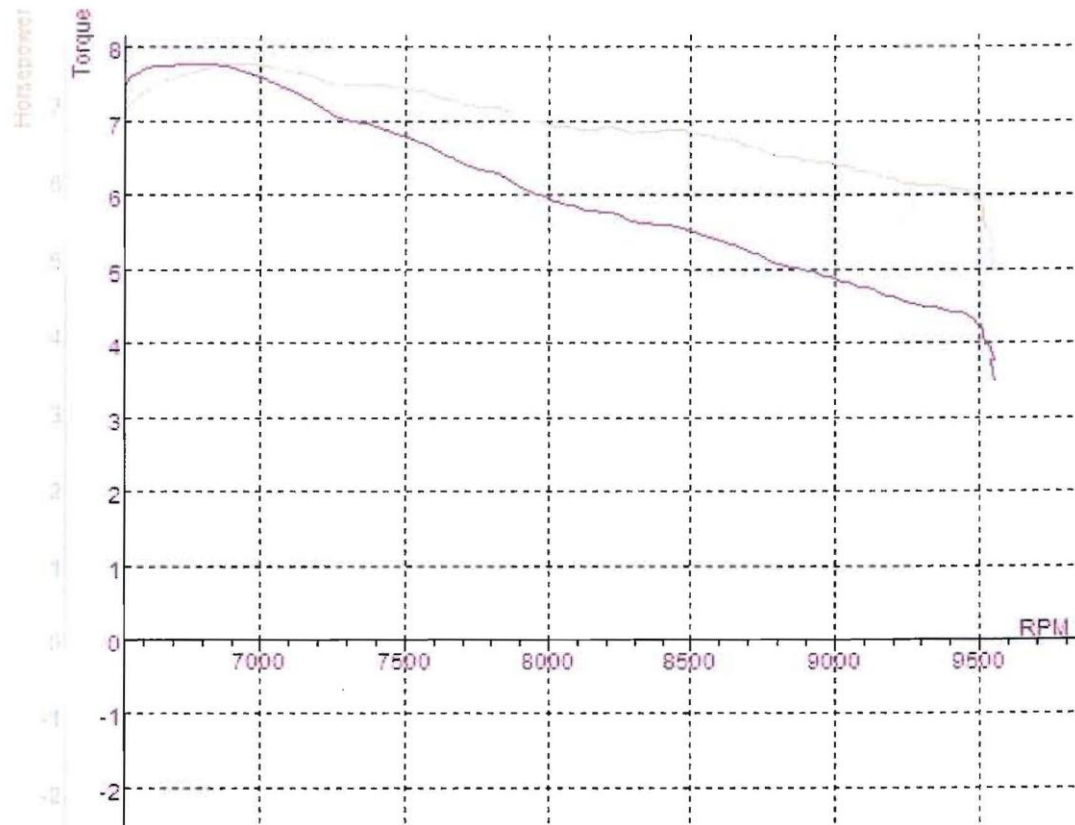
**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**ROLLER INERTIA: 1.446**

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T014		7.76 (7.76) / 6774	31.4 °C	61 %	1000.0 mbar	91.7	06/04/2017 12:52:07

**DATA FOR TEST: SCOOPY FI 110 T014**

**Comments**  
 STD MOTUL



RPM	HP (HP)	Q (N*M*M)	T
6500	7.0	7.58	0.52
6750	7.4	7.76	0.72
6774	7.4	7.76	0.74
6940	7.5	7.68	0.90
7000	7.5	7.56	0.98
7250	7.2	7.07	1.24
7500	7.2	6.79	1.52
7750	6.9	6.34	1.82
8000	6.7	5.92	2.16
8250	6.7	5.71	2.48
8500	6.6	5.49	2.84
8750	6.4	5.13	3.22
9000	6.2	4.86	3.62
9250	6.0	4.55	4.04
9500	5.7	4.26	4.58

**LOSSES:** 0.0 HP 0.0N\*M\*M  
**TOTAL ENGINE:** 7.5HP 7.76N\*M\*M

# Mototech

Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemaran, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

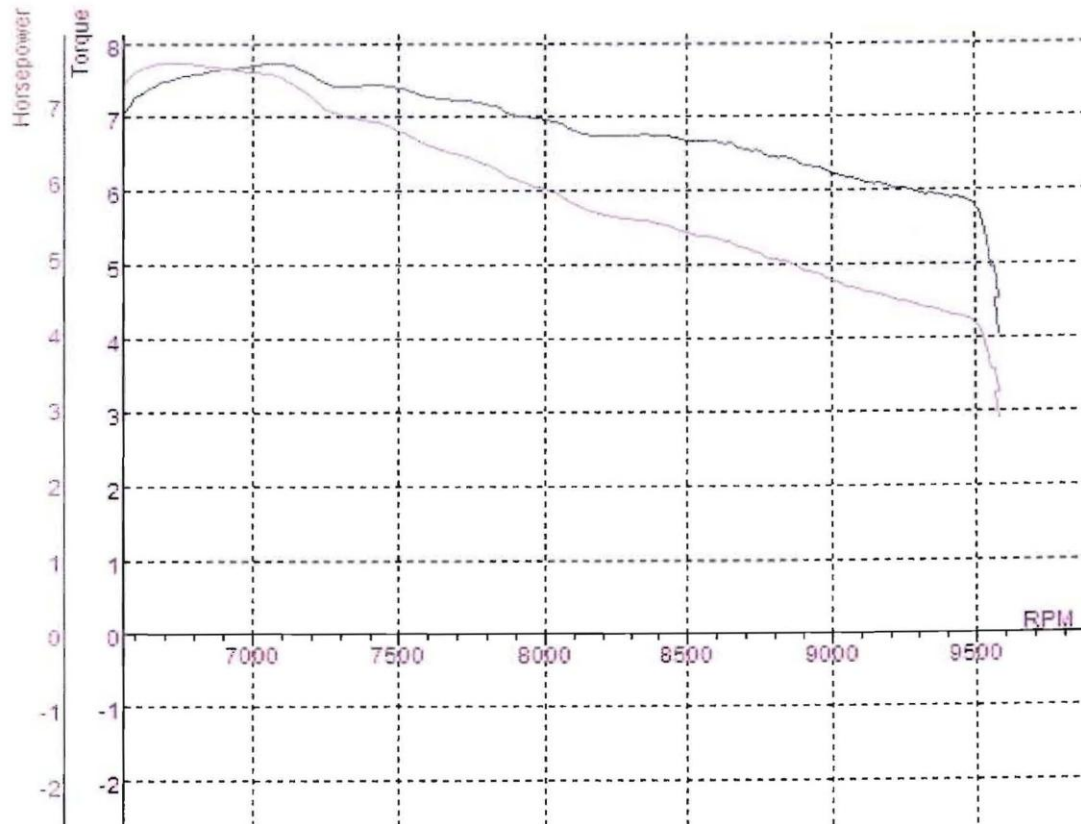
**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**ROLLER INERTIA: 1.446**

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T015			31.4 °C	61 %	1000.0 mbar	91.9	06/04/2017 12:52:32

**DATA FOR TEST: SCOOPY FI 110 T015**

**Comments**  
STD MOTUL



RPM	HP (HP)	T (N*M*M)	T
6500	7.0	7.55	0.52
6722	7.3	7.73	0.66
6750	7.4	7.72	0.70
7000	7.5	7.60	0.94
7060	7.5	7.57	1.00
7250	7.3	7.09	1.22
7500	7.2	6.79	1.50
7750	7.0	6.42	1.80
8000	6.8	6.00	2.12
8250	6.6	5.63	2.46
8500	6.5	5.41	2.82
8750	6.3	5.10	3.20
9000	6.1	4.75	3.60
9250	5.9	4.49	4.02
9500	5.7	4.21	4.54

**LOSSES:** 0.0 HP    0.0N\*M\*M  
**TOTAL ENGINE:** 7.5HP    7.73N\*M\*M

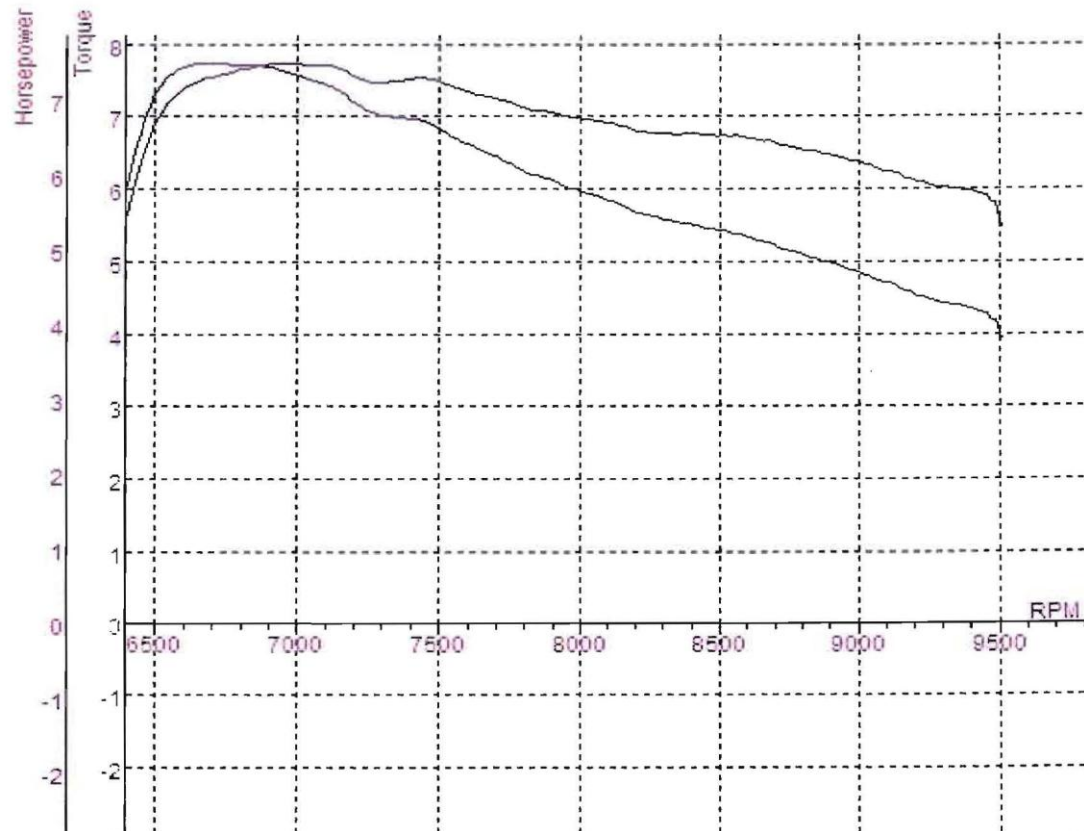


**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**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
SCOOPY FI 110 T016	7.5 (7.5) / 6963	7.73 (7.73) / 6663	31.4 °C	61 %	1000.0 mbar	91.4	06/04/2017 12:52:59



**DATA FOR TEST: SCOOPY FI 110 T016**

Comments  
 STD MOTUL

RPM	HP (HP)	Q (N*M*M)	T
6250	5.8	6.41	0.52
6500	6.8	7.44	0.62
6663	7.3	7.73	0.76
6750	7.4	7.72	0.86
6963	7.5	7.62	1.06
7000	7.5	7.57	1.10
7250	7.2	7.06	1.38
7500	7.2	6.81	1.66
7750	6.9	6.34	1.96
8000	6.8	5.96	2.28
8250	6.6	5.62	2.62
8500	6.5	5.42	2.98
8750	6.4	5.15	3.36
9000	6.2	4.84	3.76
9250	5.9	4.47	4.18
9500	5.3	3.91	4.82

LOSSES: 0.0 HP 0.0N\*M\*M  
 TOTAL ENGINE: 7.5HP 7.73N\*M\*M

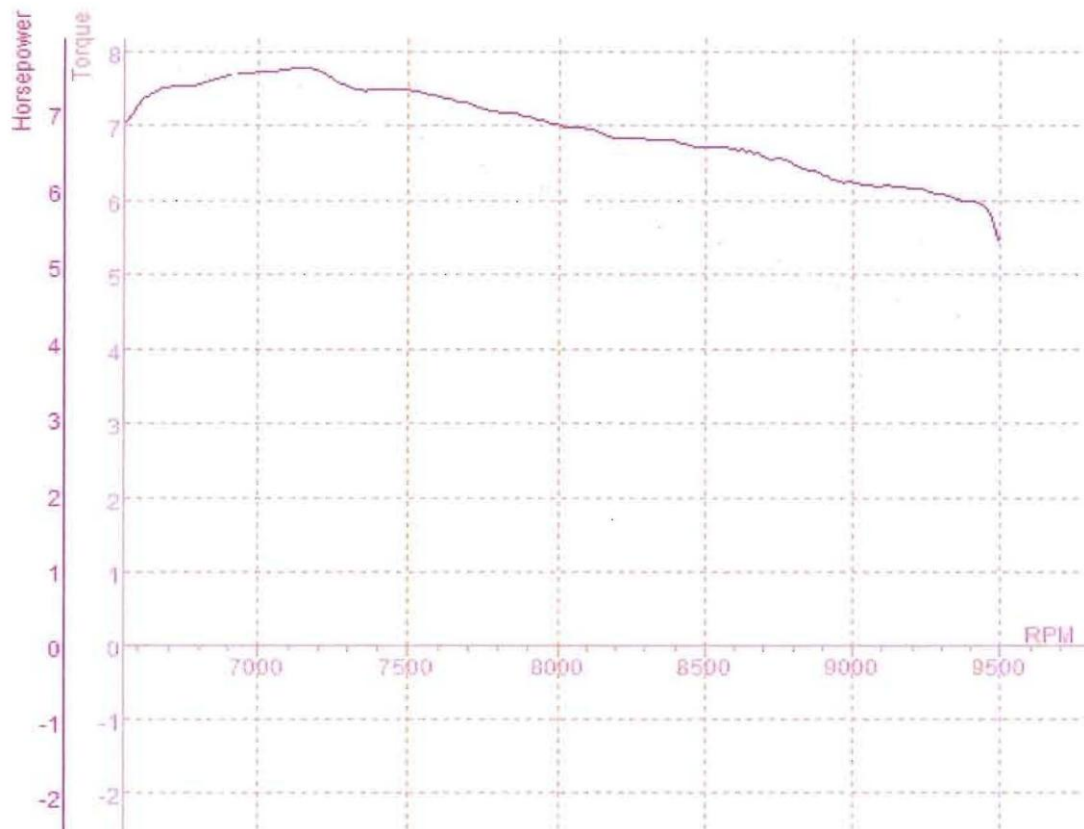


**Dyno Centre & Motorcycle Research Support**  
 Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
 Bantul, Yogyakarta, Indonesia  
 Telp : +62 274 6536303

**SPORTDYNO V3.3**  
**DYNAMOMETER: MOTOTECH**  
**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
SCOOPY FI 110 T017	7.6 (7.6) / 7154		31.4 °C	61 %	1000.0 mbar	91.2	06/04/2017 12:53:27



**DATA FOR TEST: SCOOPY FI 110 T017**

**Comments**  
 STD MOTUL

RPM	HP (HP)	Q (N*M*M)	T
6500	7.0	7.55	0.52
6679	7.3	7.78	0.62
6750	7.4	7.72	0.70
7000	7.5	7.63	0.94
7154	7.6	7.52	1.10
7250	7.4	7.23	1.22
7500	7.3	6.87	1.50
7750	7.1	6.44	1.78
8000	6.8	6.04	2.10
8250	6.7	5.71	2.44
8500	6.6	5.46	2.78
8750	6.4	5.15	3.16
9000	6.1	4.77	3.58
9250	6.0	4.55	4.00
9500	5.4	3.97	4.60

**LOSSES:** 0.0 HP 0.0N\*M\*M  
**TOTAL ENGINE:** 7.6HP 7.78N\*M\*M



Dyno Centre & Motorcycle Research Support

Jl. Ringroad Selatan, Kemasan, Singosaren, Banguntapan,  
Bantul, Yogyakarta, Indonesia  
Telp : +62 274 6536303

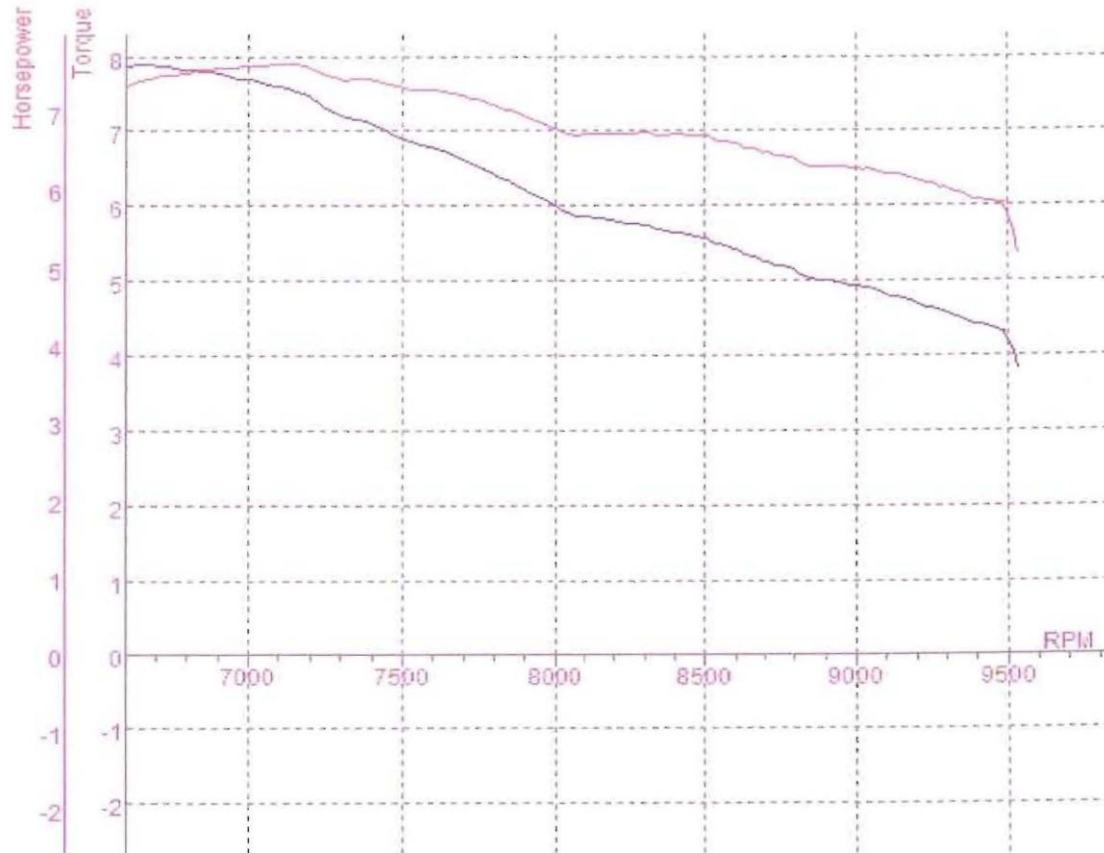
SPORTDYNO V3.3  
DYNAMOMETER: MOTOTECH  
ROLLER INERTIA: 1.446

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

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
SCOOPY FI 110 T018	7.6 (7.6) / 7135	7.89 (7.89) / 6644	31.4 °C	61 %	1000.0 mbar	91.5	06/04/2017 12:54:09

DATA FOR TEST: SCOOPY FI 110 T018

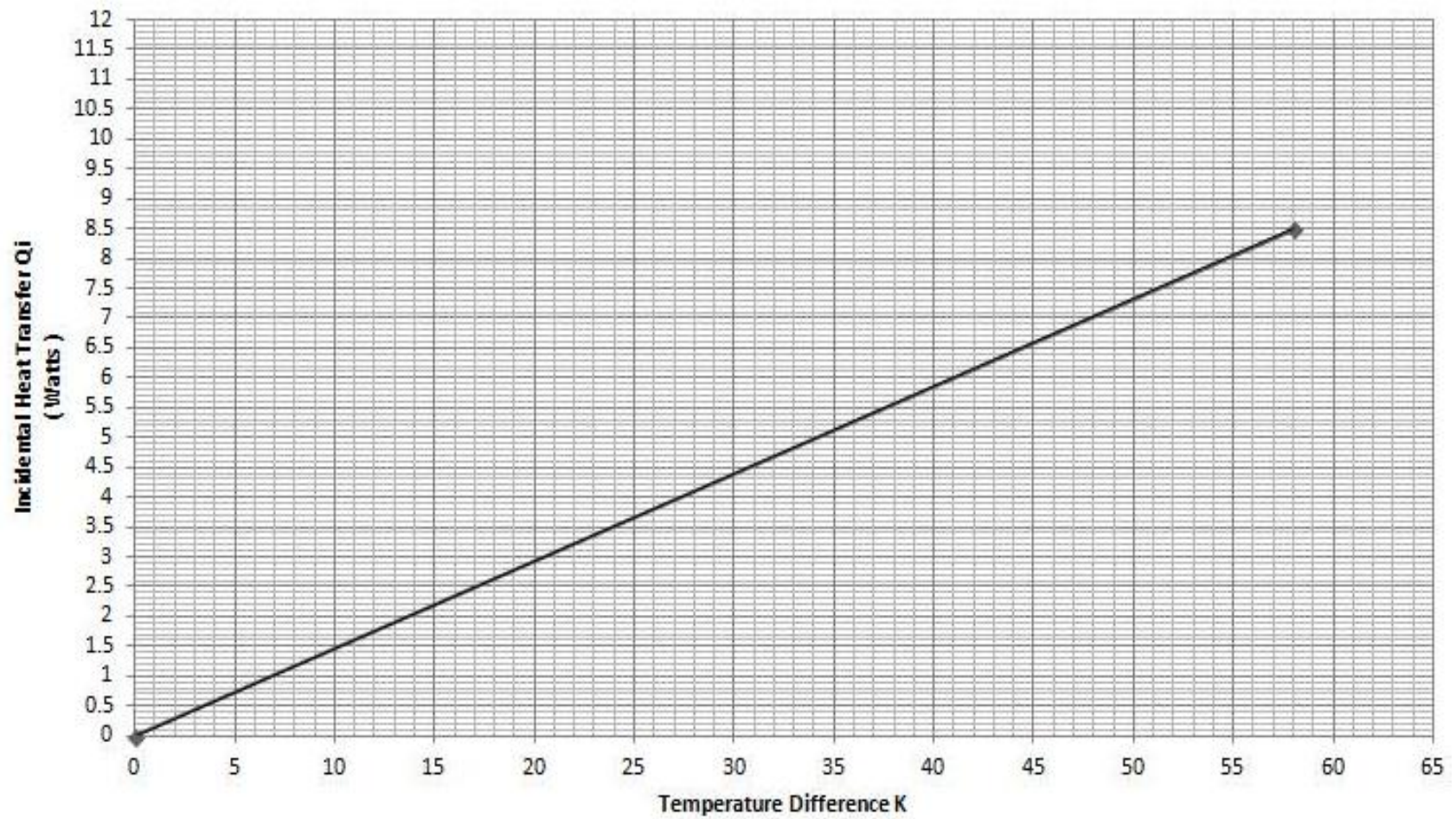
Comments  
STD MOTUL



RPM	HP (HP)	Q (N*M*M)	T
6500	7.4	7.89	0.52
6644	7.4	7.89	0.54
6750	7.5	7.84	0.66
7000	7.6	7.69	0.90
7135	7.6	7.56	1.04
7250	7.4	7.25	1.18
7500	7.3	6.86	1.46
7750	7.1	6.51	1.74
8000	6.8	5.98	2.06
8250	6.7	5.75	2.40
8500	6.7	5.56	2.74
8750	6.4	5.20	3.12
9000	6.3	4.92	3.52
9250	6.1	4.64	3.92
9500	5.7	4.20	4.48

LOSSES: 0.0 HP 0.0N\*M\*M  
TOTAL ENGINE: 7.6HP 7.89N\*M\*M

Tabel. Kalibrasi





**Tabel. Properties of liquids**

882		APPENDIX 1							
TABLE A-13									
Properties of liquids									
Temp. <i>T</i> , °C	Density $\rho$ , kg/m <sup>3</sup>	Specific Heat $c_p$ , J/kg·K	Thermal Conductivity $k$ , W/m·K	Thermal Diffusivity $\alpha$ , m <sup>2</sup> /s	Dynamic Viscosity $\mu$ , kg/m·s	Kinematic Viscosity $\nu$ , m <sup>2</sup> /s	Prandtl Number Pr	Volume Expansion Coeff. $\beta$ , 1/K	
<i>Methane (CH<sub>4</sub>)</i>									
-160	420.2	3492	0.1863	$1.270 \times 10^{-7}$	$1.133 \times 10^{-4}$	$2.699 \times 10^{-7}$	2.126	0.00352	
-150	405.0	3580	0.1703	$1.174 \times 10^{-7}$	$9.169 \times 10^{-5}$	$2.264 \times 10^{-7}$	1.927	0.00391	
-140	388.8	3700	0.1550	$1.077 \times 10^{-7}$	$7.551 \times 10^{-5}$	$1.942 \times 10^{-7}$	1.803	0.00444	
-130	371.1	3875	0.1402	$9.749 \times 10^{-8}$	$6.288 \times 10^{-5}$	$1.694 \times 10^{-7}$	1.738	0.00520	
-120	351.4	4146	0.1258	$8.634 \times 10^{-8}$	$5.257 \times 10^{-5}$	$1.496 \times 10^{-7}$	1.732	0.00637	
-110	328.8	4611	0.1115	$7.356 \times 10^{-8}$	$4.377 \times 10^{-5}$	$1.331 \times 10^{-7}$	1.810	0.00841	
-100	301.0	5578	0.0967	$5.761 \times 10^{-8}$	$3.577 \times 10^{-5}$	$1.188 \times 10^{-7}$	2.063	0.01282	
-90	261.7	8902	0.0797	$3.423 \times 10^{-8}$	$2.761 \times 10^{-5}$	$1.055 \times 10^{-7}$	3.082	0.02922	
<i>Methanol (CH<sub>3</sub>(OH))</i>									
20	788.4	2515	0.1987	$1.002 \times 10^{-7}$	$5.857 \times 10^{-4}$	$7.429 \times 10^{-7}$	7.414	0.00118	
30	779.1	2577	0.1980	$9.862 \times 10^{-8}$	$5.088 \times 10^{-4}$	$6.531 \times 10^{-7}$	6.622	0.00120	
40	769.6	2644	0.1972	$9.690 \times 10^{-8}$	$4.460 \times 10^{-4}$	$5.795 \times 10^{-7}$	5.980	0.00123	
50	760.1	2718	0.1965	$9.509 \times 10^{-8}$	$3.942 \times 10^{-4}$	$5.185 \times 10^{-7}$	5.453	0.00127	
60	750.4	2798	0.1957	$9.320 \times 10^{-8}$	$3.510 \times 10^{-4}$	$4.677 \times 10^{-7}$	5.018	0.00132	
70	740.4	2885	0.1950	$9.128 \times 10^{-8}$	$3.146 \times 10^{-4}$	$4.250 \times 10^{-7}$	4.655	0.00137	
<i>Isobutane (R600a)</i>									
-100	683.8	1881	0.1383	$1.075 \times 10^{-7}$	$9.305 \times 10^{-4}$	$1.360 \times 10^{-6}$	12.65	0.00142	
-75	659.3	1970	0.1357	$1.044 \times 10^{-7}$	$5.624 \times 10^{-4}$	$8.531 \times 10^{-7}$	8.167	0.00150	
-50	634.3	2069	0.1283	$9.773 \times 10^{-8}$	$3.769 \times 10^{-4}$	$5.942 \times 10^{-7}$	6.079	0.00161	
-25	608.2	2180	0.1181	$8.906 \times 10^{-8}$	$2.688 \times 10^{-4}$	$4.420 \times 10^{-7}$	4.963	0.00177	
0	580.6	2306	0.1068	$7.974 \times 10^{-8}$	$1.993 \times 10^{-4}$	$3.432 \times 10^{-7}$	4.304	0.00199	
25	550.7	2455	0.0956	$7.069 \times 10^{-8}$	$1.510 \times 10^{-4}$	$2.743 \times 10^{-7}$	3.880	0.00232	
50	517.3	2640	0.0851	$6.233 \times 10^{-8}$	$1.155 \times 10^{-4}$	$2.233 \times 10^{-7}$	3.582	0.00286	
75	478.5	2896	0.0757	$5.460 \times 10^{-8}$	$8.785 \times 10^{-5}$	$1.836 \times 10^{-7}$	3.363	0.00385	
100	429.6	3361	0.0669	$4.634 \times 10^{-8}$	$6.483 \times 10^{-5}$	$1.509 \times 10^{-7}$	3.256	0.00628	
<i>Glycerin</i>									
0	1276	2262	0.2820	$9.773 \times 10^{-8}$	10.49	$8.219 \times 10^{-3}$	84,101		
5	1273	2288	0.2835	$9.732 \times 10^{-8}$	6.730	$5.287 \times 10^{-3}$	54,327		
10	1270	2320	0.2846	$9.662 \times 10^{-8}$	4.241	$3.339 \times 10^{-3}$	34,561		
15	1267	2354	0.2856	$9.576 \times 10^{-8}$	2.496	$1.970 \times 10^{-3}$	20,570		
20	1264	2386	0.2860	$9.484 \times 10^{-8}$	1.519	$1.201 \times 10^{-3}$	12,671		
25	1261	2416	0.2860	$9.388 \times 10^{-8}$	0.9934	$7.878 \times 10^{-4}$	8,392		
30	1258	2447	0.2860	$9.291 \times 10^{-8}$	0.6582	$5.232 \times 10^{-4}$	5,631		
35	1255	2478	0.2860	$9.195 \times 10^{-8}$	0.4347	$3.464 \times 10^{-4}$	3,767		
40	1252	2513	0.2863	$9.101 \times 10^{-8}$	0.3073	$2.455 \times 10^{-4}$	2,697		
<i>Engine Oil (unized)</i>									
0	899.0	1797	0.1469	$9.097 \times 10^{-8}$	3.814	$4.242 \times 10^{-3}$	46,636	0.00070	
20	888.1	1881	0.1450	$8.680 \times 10^{-8}$	0.8374	$9.429 \times 10^{-4}$	10,863	0.00070	
40	876.0	1964	0.1444	$8.391 \times 10^{-8}$	0.2177	$2.485 \times 10^{-4}$	2,962	0.00070	
60	863.9	2048	0.1404	$7.934 \times 10^{-8}$	0.07399	$8.565 \times 10^{-5}$	1,080	0.00070	
80	852.0	2132	0.1380	$7.599 \times 10^{-8}$	0.03232	$3.794 \times 10^{-5}$	499.3	0.00070	
100	840.0	2220	0.1367	$7.330 \times 10^{-8}$	0.01718	$2.046 \times 10^{-5}$	279.1	0.00070	
120	828.9	2308	0.1347	$7.042 \times 10^{-8}$	0.01029	$1.241 \times 10^{-5}$	176.3	0.00070	
140	816.8	2395	0.1330	$6.798 \times 10^{-8}$	0.006558	$8.029 \times 10^{-6}$	118.1	0.00070	
150	810.3	2441	0.1327	$6.708 \times 10^{-8}$	0.005344	$6.595 \times 10^{-6}$	98.31	0.00070	

Source: Data generated from the EES software developed by S. A. Klein and F. L. Alvarado. Originally based on various sources.