LAMPIRAN

Lampiran 1. Data Pengujian Viskositas Minyak Pelumas MPX 1

Percobaan 1							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	MPX 1 (Suhu ± 20˚C)	1	3	7	20	140	58,92
		1	6	16,8	20	168	
		1	12	37,5	20	187,5	
		1	30	95,7	20	191,4	
		1	60		20		
2	MPX 1 (Suhu ± 30˚C)	1	3	4,6	30	92	
		1	6	5,3	30	53	
		1	12	15,6	30	78	
		1	30	41,1	30	82,2	
		1	60	79	30	79	
3	MPX 1 (Suhu ± 40˚C)	1	3	3,2	40	64	
		1	6	5	40	50	
		1	12	9,7	40	48,5	
		1	30	25	40	50	
		1	60	48,8	40	48,8	
4	MPX 1 (Suhu ± 50˚C)	1	3	1,3	50	26	
		1	6	2,9	50	29	
		1	12	6,2	50	31	
		1	30	17,2	50	34,4	
		1	60	33,3	50	33,3	
5	MPX 1 (Suhu ± 60˚C)	1	3	1,8	60	36	
		1	6	2,5	60	25	
		1	12	4,1	60	20,5	
		1	30	12,5	60	25	
		1	60	23,2	60	23,2	
6	MPX 1 (Suhu ± 70˚C)	1	3	1,5	70	30	
		1	6	2,1	70	21	
		1	12	2,2	70	11	
		1	30	7,7	70	15,4	
		1	60	15,4	70	15,4	

Percobaan 2							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	MPX 1 (Suhu ± 20˚C)	1	3	6,8	20	136	58,20
		1	6	16,6	20	166	
		1	12	37,2	20	186	
		1	30	95,3	20	190,6	
		1	60		20		
2	MPX 1 (Suhu ± 30˚C)	1	3	4	30	80	
		1	6	5,8	30	58	
		1	12	15,6	30	78	
		1	30	41,2	30	82,4	
		1	60	79,2	30	79,2	
3	MPX 1 (Suhu ± 40˚C)	1	3	2,8	40	56	
		1	6	5,6	40	56	
		1	12	9,8	40	49	
		1	30	25,2	40	50,4	
		1	60	49,7	40	49,7	
4	MPX 1 (Suhu ± 50˚C)	1	3	1,2	50	24	
		1	6	3,1	50	31	
		1	12	6,3	50	31,5	
		1	30	17,5	50	35	
		1	60	34,8	50	34,8	
5	MPX 1 (Suhu ± 60˚C)	1	3	1,2	60	24	
		1	6	2,7	60	27	
		1	12	4,2	60	21	
		1	30	12,8	60	25,6	
		1	60	23,7	60	23,7	
6	MPX 1 (Suhu ± 70˚C)	1	3	1,3	70	26	
		1	6	2,3	70	23	
		1	12	2,5	70	12,5	
		1	30	7,8	70	15,6	
		1	60	15,8	70	15,8	

Percobaan 3							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	MPX 1 (Suhu ± 20˚C)	1	3	6,6	20	132	57,82
		1	6	16,5	20	165	
		1	12	36,7	20	183,5	
		1	30	94,8	20	189,6	
		1	60		20		
2	MPX 1 (Suhu ± 30˚C)	1	3	4	30	80	
		1	6	5,4	30	54	
		1	12	15,6	30	78	
		1	30	41,3	30	82,6	
		1	60	79,4	30	79,4	
3	MPX 1 (Suhu ± 40˚C)	1	3	3,2	40	64	
		1	6	4,6	40	46	
		1	12	9,9	40	49,5	
		1	30	25,4	40	50,8	
		1	60	50,6	40	50,6	
4	MPX 1 (Suhu ± 50˚C)	1	3	1,2	50	24	
		1	6	3,2	50	32	
		1	12	6,5	50	32,5	
		1	30	17,6	50	35,2	
		1	60	35,5	50	35,5	
5	MPX 1 (Suhu ± 60˚C)	1	3	1,1	60	22	
		1	6	2,6	60	26	
		1	12	4,6	60	23	
		1	30	12,9	60	25,8	
		1	60	24,3	60	24,3	
6	MPX 1 (Suhu ± 70˚C)	1	3	1,1	70	22	
		1	6	2,4	70	24	
		1	12	2,7	70	13,5	
		1	30	8	70	16	
		1	60	16,1	70	16,1	

Lampiran 2. Data Pengujian Viskositas Minyak Pelumas Shell Advance AX7

Percobaan 1							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Shell Advance AX7 (Suhu ± 20˚C)	1	3	7,4	20	148	68,20
		1	6	18,2	20	182	
		1	12	37,9	20	189,5	
		1	30	94,5	20	189	
		1	60		20		
2	Shell Advance AX7 (Suhu ± 30˚C)	1	3	3,8	30	76	
		1	6	9,6	30	96	
		1	12	21,3	30	106,5	
		1	30	56	30	112	
		1	60		30		
3	Shell Advance AX7 (Suhu ± 40˚C)	1	3	2,1	40	42	
		1	6	5,8	40	58	
		1	12	13,6	40	68	
		1	30	38,4	40	76,8	
		1	60	78,1	40	78,1	
4	Shell Advance AX7 (Suhu ± 50˚C)	1	3	1,1	50	22	
		1	6	4,6	50	46	
		1	12	10,8	50	54	
		1	30	23,7	50	47,4	
		1	60	51,7	50	51,7	
5	Shell Advance AX7 (Suhu ± 60˚C)	1	3	1	60	20	
		1	6	3	60	30	
		1	12	5,6	60	28	
		1	30	17,9	60	35,8	
		1	60	42	60	42	
6	Shell Advance AX7 (Suhu ± 70˚C)	1	3	0,6	70	12	
		1	6	2,6	70	26	
		1	12	4,5	70	22,5	
		1	30	12,3	70	24,6	
		1	60	25,6	70	25,6	

Percobaan 2							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Shell Advance AX7 (Suhu ± 20˚C)	1	3	7,5	20	150	69,79
		1	6	18,2	20	182	
		1	12	37,7	20	188,5	
		1	30	94	20	188	
		1	60		20		
2	Shell Advance AX7 (Suhu ± 30˚C)	1	3	4,2	30	84	
		1	6	9,7	30	97	
		1	12	21,4	30	107	
		1	30	56,7	30	113,4	
		1	60		30		
3	Shell Advance AX7 (Suhu ± 40˚C)	1	3	2,3	40	46	
		1	6	5,9	40	59	
		1	12	13,7	40	68,5	
		1	30	38,9	40	77,8	
		1	60	79,1	40	79,1	
4	Shell Advance AX7 (Suhu ± 50˚C)	1	3	1,5	50	30	
		1	6	4,9	50	49	
		1	12	11	50	55	
		1	30	24,3	50	48,6	
		1	60	52,4	50	52,4	
5	Shell Advance AX7 (Suhu ± 60˚C)	1	3	1	60	20	
		1	6	3	60	30	
		1	12	5,8	60	29	
		1	30	18,2	60	36,4	
		1	60	42,8	60	42,8	
6	Shell Advance AX7 (Suhu ± 70˚C)	1	3	1	70	20	
		1	6	2,7	70	27	
		1	12	4,7	70	23,5	
		1	30	12,1	70	24,2	
		1	60	26	70	26	

Percobaan 3							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Shell Advance AX7 (Suhu ± 20˚C)	1	3	7,6	20	152	70,28
		1	6	18,2	20	182	
		1	12	37,7	20	188,5	
		1	30	93,5	20	187	
		1	60		20		
2	Shell Advance AX7 (Suhu ± 30˚C)	1	3	3,9	30	78	
		1	6	9,6	30	96	
		1	12	21,4	30	107	
		1	30	57	30	114	
		1	60		30		
3	Shell Advance AX7 (Suhu ± 40˚C)	1	3	2,4	40	48	
		1	6	6	40	60	
		1	12	13,9	40	69,5	
		1	30	39,2	40	78,4	
		1	60	79,8	40	79,8	
4	Shell Advance AX7 (Suhu ± 50˚C)	1	3	1,6	50	32	
		1	6	5,2	50	52	
		1	12	11,2	50	56	
		1	30	24,6	50	49,2	
		1	60	53,1	50	53,1	
5	Shell Advance AX7 (Suhu ± 60˚C)	1	3	1,2	60	24	
		1	6	3,2	60	32	
		1	12	6	60	30	
		1	30	18,5	60	37	
		1	60	43,6	60	43,6	
6	Shell Advance AX7 (Suhu ± 70˚C)	1	3	0,8	70	16	
		1	6	2,7	70	27	
		1	12	5	70	25	
		1	30	12,2	70	24,4	
		1	60	26,3	70	26,3	

Lampiran 3. Data Pengujian Viskositas Minyak Pelumas Federal Racing

Percobaan 1							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Federal Racing (Suhu ± 20˚C)	1	3	8,3	20	166	78,46
		1	6	19,8	20	198	
		1	12	40,9	20	204,5	
		1	30	99,6	20	199,2	
		1	60		20		
2	Federal Racing (Suhu ± 30˚C)	1	3	4,8	30	96	
		1	6	11	30	110	
		1	12	22,1	30	110,5	
		1	30	58,6	30	117,2	
		1	60		30		
3	Federal Racing (Suhu ± 40˚C)	1	3	3,2	40	64	
		1	6	6,8	40	68	
		1	12	14,2	40	71	
		1	30	38,7	40	77,4	
		1	60	80,1	40	80,1	
4	Federal Racing (Suhu ± 50˚C)	1	3	2,5	50	50	
		1	6	6	50	60	
		1	12	12,3	50	61,5	
		1	30	27,2	50	54,4	
		1	60	56	50	56	
5	Federal Racing (Suhu ± 60˚C)	1	3	1,9	60	38	
		1	6	4,6	60	46	
		1	12	8,3	60	41,5	
		1	30	22	60	44	
		1	60	39,9	60	36,9	
6	Federal Racing (Suhu ± 70˚C)	1	3	1,4	70	28	
		1	6	3,4	70	34	
		1	12	6	70	30	
		1	30	13,5	70	27	
		1	60	27,8	70	27,8	

Percobaan 2							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Federal Racing (Suhu ± 20˚C)	1	3	8,3	20	166	79,42
		1	6	19,8	20	198	
		1	12	40,6	20	203	
		1	30	98,7	20	197,4	
		1	60		20		
2	Federal Racing (Suhu ± 30˚C)	1	3	5	30	100	
		1	6	11	30	110	
		1	12	22,2	30	110	
		1	30	58,8	30	117,6	
		1	60		30		
3	Federal Racing (Suhu ± 40˚C)	1	3	3,4	40	68	
		1	6	7,1	40	71	
		1	12	14,2	40	71	
		1	30	39,2	40	78,4	
		1	60	80,8	40	80,8	
4	Federal Racing (Suhu ± 50˚C)	1	3	2,5	50	50	
		1	6	5,9	50	59	
		1	12	12,5	50	62,5	
		1	30	27,3	50	54,6	
		1	60	56,7	50	56,7	
5	Federal Racing (Suhu ± 60˚C)	1	3	2,4	60	48	
		1	6	4,8	60	48	
		1	12	8,4	60	42	
		1	30	22,4	60	44,8	
		1	60	37,4	60	37,4	
6	Federal Racing (Suhu ± 70˚C)	1	3	1,3	70	26	
		1	6	3,7	70	37	
		1	12	6,2	70	31	
		1	30	13,6	70	27,2	
		1	60	28,3	70	28,3	

Percobaan 3							
No.	Minyak Pelumas	Rotor	*Speed* (rpm)	*Percent* (%)	Temperatur (°C)	Viskositas (Mpa.s)	Rata-rata Viskositas
1	Federal Racing (Suhu ± 20˚C)	1	3	9,4	20	188	80,33
		1	6	19,6	20	196	
		1	12	40,3	20	201,5	
		1	30	97,8	20	195,6	
		1	60		20		
2	Federal Racing (Suhu ± 30˚C)	1	3	5,3	30	106	
		1	6	11,1	30	111	
		1	12	22,2	30	110	
		1	30	58,9	30	117,8	
		1	60		30		
3	Federal Racing (Suhu ± 40˚C)	1	3	3,1	40	62	
		1	6	6,7	40	67	
		1	12	14,3	40	71,5	
		1	30	39,7	40	79,4	
		1	60	81,4	40	81,4	
4	Federal Racing (Suhu ± 50˚C)	1	3	2,5	50	50	
		1	6	6,2	50	62	
		1	12	12,7	50	63,5	
		1	30	27,4	50	54,8	
		1	60	57,6	50	57,6	
5	Federal Racing (Suhu ± 60˚C)	1	3	2	60	40	
		1	6	4,7	60	47	
		1	12	8,6	60	43	
		1	30	22,8	60	45,6	
		1	60	38	60	38	
6	Federal Racing (Suhu ± 70˚C)	1	3	1,6	70	32	
		1	6	4	70	40	
		1	12	6,4	70	32	
		1	30	13,8	70	27,6	
		1	60	29	70	29	

Lampiran 4. Data Pengujian Konduktivitas Termal Minyak Pelumas MPX 1

Minyak Pelumas MPX 1 SAE 10W-30 (*Mineral Oil*)											Debit air: 1 LPM		
No.	Variasi	T1 (°C)	T2 (°C)	Tegangan (Volt)	Kuat Arus (Ampere)	Daya, Qe (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	*Radial Clearance* (Δr)	Luas Permukaan (m^2)	Temperatur Rata-rata (°C)	Konduktivitas Termal, K (W/m.K)
1	1	29,4	28,7	44	0,081	3,564	0,7	0,068	3,496	0,00034	0,0133	29,05	0,128
	2	31,9	29,5	80	0,156	12,48	2,4	0,319	12,161	0,00034	0,0133	30,70	0,130
	3	36,1	30,6	122	0,241	29,402	5,5	0,777	28,626	0,00034	0,0133	33,35	0,133
	4	41	31,5	159	0,302	48,018	9,5	1,367	46,651	0,00034	0,0133	36,25	0,126
	5	47,5	33,1	200	0,357	71,4	14,4	2,090	69,310	0,00034	0,0133	40,30	0,123
2	1	29,3	28,6	45	0,084	3,78	0,7	0,068	3,712	0,00034	0,0133	28,95	0,136
	2	32,1	29,6	82	0,168	13,776	2,5	0,334	13,442	0,00034	0,0133	30,85	0,137
	3	35,9	30,5	121	0,237	28,677	5,4	0,762	27,915	0,00034	0,0133	33,20	0,132
	4	41	31,6	160	0,302	48,32	9,4	1,352	46,968	0,00034	0,0133	36,30	0,128
	5	47,3	32,9	201	0,358	71,958	14,4	2,090	69,868	0,00034	0,0133	40,10	0,124
3	1	30	29,3	44	0,081	3,564	0,7	0,068	3,496	0,00034	0,0133	29,65	0,128
	2	32,5	29,9	83	0,171	14,193	2,6	0,348	13,845	0,00034	0,0133	31,20	0,136
	3	36	30,7	121	0,24	29,04	5,3	0,747	28,293	0,00034	0,0133	33,35	0,136
	4	41,2	31,8	161	0,306	49,266	9,4	1,352	47,914	0,00034	0,0133	36,50	0,130
	5	47,6	33,1	200	0,361	72,2	14,5	2,105	70,095	0,00034	0,0133	40,35	0,124

Lampiran 5. Data Pengujian Konduktivitas Termal Minyak Pelumas Shell Advance AX7

Minyak Pelumas Shell Advance AX7 SAE 10W-40 (*Semi Synthetic Oil*)											Debit air : 1 LPM		
No.	Variasi	T1 (°C)	T2 (°C)	Tegangan (Volt)	Kuat Arus (Ampere)	Daya, Qe (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	*Radial Clearance* (Δr)	Luas Permukaan (m^2)	Temperatur Rata-rata (°C)	Konduktivitas Termal, K (W/m.K)
1	1	29,2	28,7	36	0,062	2,232	0,5	0,039	2,194	0,00034	0,0133	28,95	0,112
	2	31,8	29,6	80	0,158	12,640	2,2	0,289	12,351	0,00034	0,0133	30,70	0,144
	3	35,6	30,5	120	0,231	27,720	5,1	0,717	27,003	0,00034	0,0133	33,05	0,135
	4	40,7	31,8	161	0,297	47,817	8,9	1,278	46,539	0,00034	0,0133	36,25	0,134
	5	47,2	33,3	201	0,342	68,742	13,9	2,016	66,726	0,00034	0,0133	40,25	0,123
2	1	30,1	29,5	42	0,076	3,192	0,6	0,053	3,139	0,00034	0,0133	29,80	0,134
	2	32,5	30,1	82	0,164	13,448	2,4	0,319	13,129	0,00034	0,0133	31,30	0,140
	3	35,7	30,8	118	0,233	27,494	4,9	0,688	26,806	0,00034	0,0133	33,25	0,140
	4	40,5	32,3	155	0,289	44,795	8,2	1,175	43,620	0,00034	0,0133	36,40	0,136
	5	47,2	33,8	199	0,34	67,660	13,4	1,943	65,717	0,00034	0,0133	40,50	0,125
3	1	30,0	29,3	44	0,082	3,608	0,7	0,068	3,540	0,00034	0,0133	29,65	0,129
	2	32,6	30,1	83	0,167	13,861	2,5	0,334	13,527	0,00034	0,0133	31,35	0,138
	3	36,3	31,0	124	0,241	29,884	5,3	0,747	29,137	0,00034	0,0133	33,65	0,141
	4	41,2	32,1	162	0,305	49,410	9,1	1,308	48,102	0,00034	0,0133	36,65	0,135
	5	47,6	33,5	202	0,359	72,518	14,1	2,046	70,472	0,00034	0,0133	40,55	0,128

Lampiran 6. Data Pengujian Konduktivitas Termal Minyak Pelumas Federal Racing

Minyak Pelumas Federal Racing SAE 10W-40 (*Full Synthetic Oil*)											Debit air : 1 LPM		
No.	Variasi	T1 (°C)	T2 (°C)	Tegangan (Volt)	Kuat Arus (Ampere)	Daya, Qe (Watt)	T1-T2 (°C)	Qi (Watt)	Qc (Watt)	*Radial Clearance* (Δr)	Luas Permukaan (m^2)	Temperatur Rata-rata (°C)	Konduktivitas Termal, K (W/m.K)
1	1	28,4	27,8	44	0,08	3,520	0,6	0,053	3,467	0,00034	0,0133	28,10	0,148
	2	31,4	29,2	82	0,166	13,612	2,2	0,289	13,323	0,00034	0,0133	30,30	0,155
	3	35,4	30,6	121	0,239	28,919	4,8	0,673	28,246	0,00034	0,0133	33,00	0,150
	4	40,9	32,3	161	0,307	49,427	8,6	1,234	48,193	0,00034	0,0133	36,60	0,143
	5	47,9	34,4	202	0,369	74,538	13,5	1,957	72,581	0,00034	0,0133	41,15	0,137
2	1	29	28,4	42	0,079	3,318	0,6	0,053	3,265	0,00034	0,0133	28,70	0,139
	2	31,7	29,6	79	0,158	12,482	2,1	0,275	12,207	0,00034	0,0133	30,65	0,149
	3	35,8	31,1	119	0,236	28,084	4,7	0,658	27,426	0,00034	0,0133	33,45	0,149
	4	41,2	32,8	160	0,304	48,640	8,4	1,205	47,435	0,00034	0,0133	37,00	0,144
	5	48,2	34,9	200	0,364	72,800	13,3	1,928	70,872	0,00034	0,0133	41,55	0,136
3	1	30,2	29,4	45	0,084	3,780	0,8	0,083	3,697	0,00034	0,0133	29,80	0,118
	2	32,4	30,3	80	0,16	12,800	2,1	0,275	12,525	0,00034	0,0133	31,35	0,152
	3	36,4	31,6	120	0,238	28,560	4,8	0,673	27,887	0,00034	0,0133	34,00	0,149
	4	41,9	33,2	162	0,308	49,896	8,7	1,249	48,647	0,00034	0,0133	37,55	0,143
	5	48,6	35,4	201	0,367	73,767	13,2	1,913	71,854	0,00034	0,0133	42,00	0,139

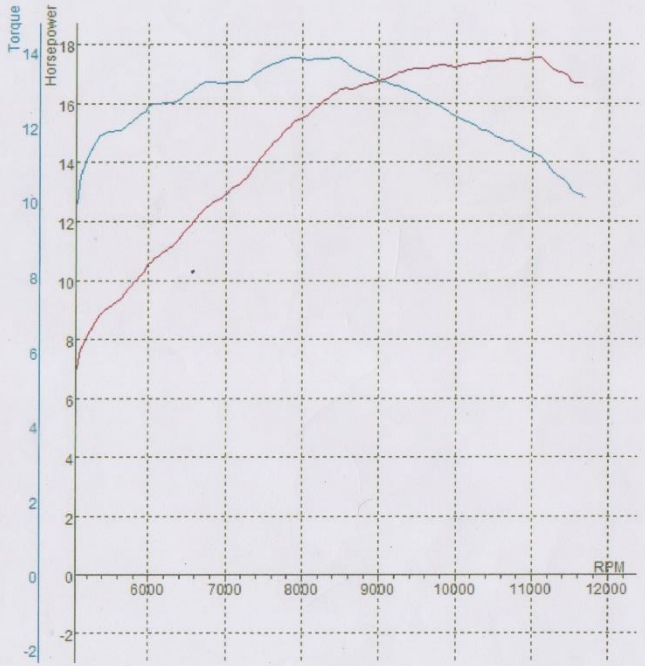
Lampiran 7. Data Pengujian Torsi dan Daya Minyak Pelumas MPX 1

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T008	17.6 (17.6) / 11078	13.85 (13.85) / 7875	33.5 °C	46 %	1000.0 mbar	103.0	3/29/2018 3:32:11 PM



DATA FOR TEST: UMY DYNO TEST CB150 STD T008

Comments
MPX1

RPM	HP (HP)	TQ (N*M*M)	T
4750	7.4	10.37	0.52
5000	7.7	10.69	0.54
5250	8.4	11.46	0.62
5500	9.2	11.86	0.76
5750	9.8	12.12	0.90
6000	10.7	12.59	1.04
6250	11.1	12.63	1.16
6500	11.8	12.88	1.28
6750	12.5	13.19	1.42
7000	13.0	13.15	1.54
7250	13.5	13.21	1.66
7500	14.3	13.55	1.78
7750	15.0	13.78	1.90
7875	15.3	13.85	1.96
8000	15.6	13.77	2.04
8250	16.1	13.81	2.16
8500	16.5	13.76	2.28
8750	16.6	13.46	2.40
9000	16.8	13.23	2.52
9250	17.0	13.07	2.66
9500	17.2	12.80	2.80
9750	17.3	12.55	2.94
10000	17.3	12.20	3.08
10250	17.4	11.97	3.22
10500	17.4	11.74	3.36
10750	17.5	11.55	3.50
11000	17.5	11.27	3.66
11078	17.6	11.23	3.70
11250	17.1	10.77	3.82
11500	16.7	10.30	3.98

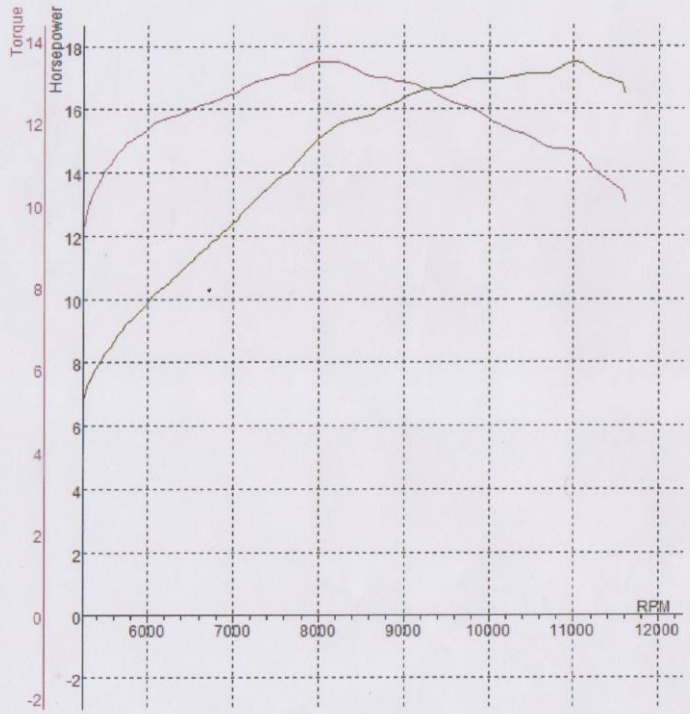
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.6HP	13.85N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T012	17.5 (17.5) / 11009	13.47 (13.47) / 8111	33.5 °C	46 %	1000.0 mbar	84.3	3/29/2018 3:34:51 PM



DATA FOR TEST: UMY DYNO TEST CB150 STD T012

Comments
MPX1

RPM	HP (HP)	TQ (N*M*M)	T
4750	7.2	9.84	0.52
5000	7.5	10.14	0.54
5250	7.8	10.40	0.56
5500	8.5	10.97	0.62
5750	9.4	11.55	0.72
6000	10.0	11.88	0.80
6250	10.5	12.09	0.88
6500	11.2	12.33	0.98
6750	11.9	12.53	1.08
7000	12.5	12.73	1.16
7250	13.2	12.97	1.24
7500	13.8	13.11	1.32
7750	14.5	13.29	1.42
8000	15.1	13.46	1.50
8111	15.3	13.47	1.52
8250	15.5	13.42	1.58
8500	15.7	13.20	1.66
8750	16.1	13.06	1.76
9000	16.4	12.95	1.84
9250	16.6	12.78	1.94
9500	16.7	12.53	2.02
9750	16.9	12.35	2.12
10000	17.0	12.05	2.22
10250	17.0	11.79	2.32
10500	17.1	11.58	2.42
10750	17.2	11.35	2.52
11000	17.5	11.30	2.62
11009	17.5	11.30	2.62
11250	17.1	10.75	2.74
11500	16.9	10.37	2.86

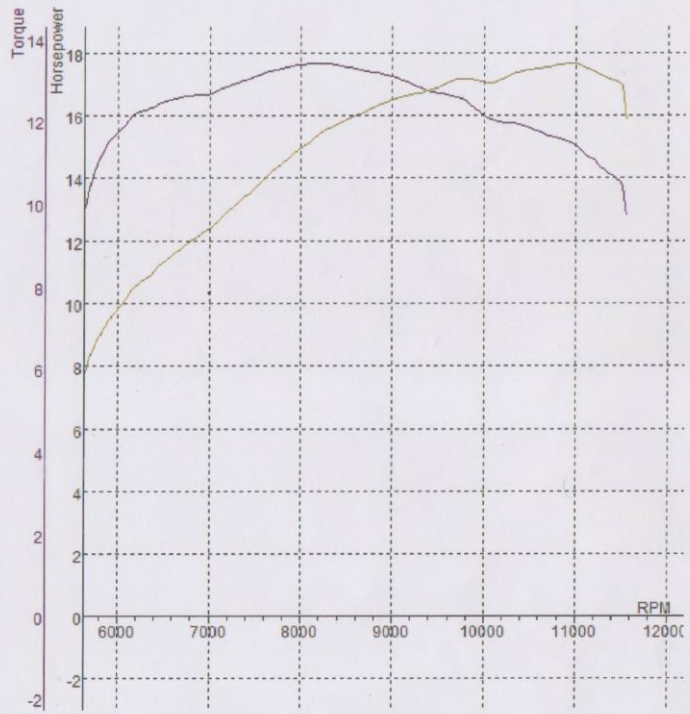
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.5HP	13.47N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T019	17.7 (17.7) / 10953	13.40 (13.40) / 8196	33.6 °C	45 %	1000.0 mbar	84.2	3/29/2018 3:38:00 PM



DATA FOR TEST: UMY DYNO TEST CB150 STD T019

Comments
MPX1

RPM	HP (HP)	TQ (N*M*M)	T
5000	8.2	10.39	0.52
5250	8.6	10.78	0.54
5500	9.0	11.09	0.56
5750	9.2	11.32	0.58
6000	9.9	11.79	0.64
6250	10.8	12.27	0.74
6500	11.3	12.47	0.82
6750	12.0	12.62	0.92
7000	12.5	12.68	1.00
7250	13.1	12.89	1.08
7500	13.9	13.12	1.18
7750	14.5	13.28	1.26
8000	15.0	13.37	1.34
8196	15.4	13.40	1.40
8250	15.5	13.40	1.42
8500	15.9	13.29	1.52
8750	16.2	13.18	1.60
9000	16.5	13.04	1.70
9250	16.7	12.83	1.78
9500	17.0	12.66	1.88
9750	17.2	12.48	1.98
10000	17.0	12.11	2.06
10250	17.2	11.95	2.16
10500	17.5	11.80	2.26
10750	17.6	11.60	2.36
10953	17.7	11.46	2.44
11000	17.6	11.33	2.48
11250	17.3	10.89	2.58
11500	16.9	10.44	2.70

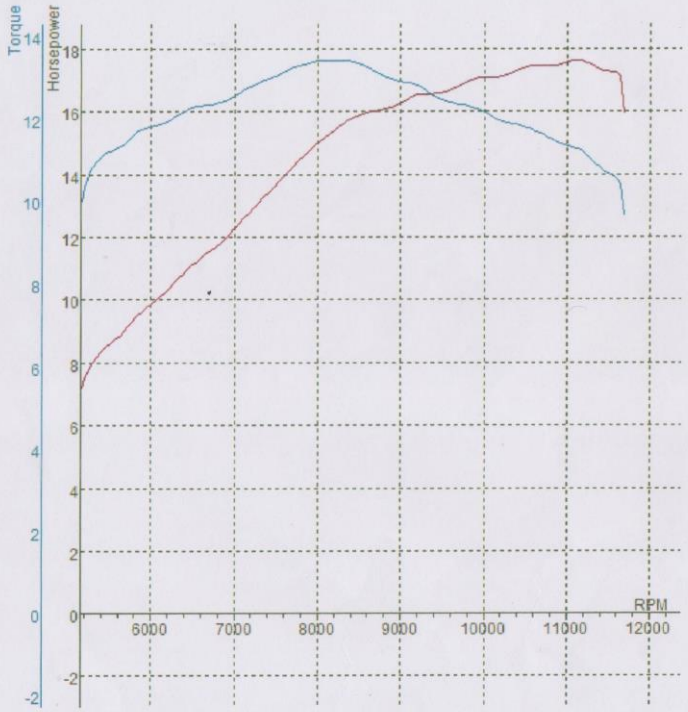
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.7HP	13.40N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T024	17.6 (17.6) / 11169	13.42 (13.42) / 8255	33.7 °C	45 %	1000.0 mbar	84.4	3/29/2018 3:40:57 PM



DATA FOR TEST: UMY DYNO TEST CB150 STD T024

Comments
MPXI

RPM	HP (HP)	TQ (N*M*M)	T
4500	7.5	10.37	0.52
4750	7.8	10.63	0.54
5000	8.0	10.84	0.56
5250	8.2	10.98	0.58
5500	8.6	11.22	0.64
5750	9.3	11.58	0.74
6000	9.9	11.80	0.82
6250	10.5	12.03	0.92
6500	11.2	12.29	1.02
6750	11.7	12.36	1.10
7000	12.3	12.55	1.18
7250	13.1	12.88	1.28
7500	13.8	13.07	1.36
7750	14.4	13.27	1.44
8000	15.0	13.39	1.52
8250	15.5	13.42	1.60
8255	15.5	13.42	1.60
8500	15.9	13.31	1.70
8750	16.0	13.07	1.78
9000	16.3	12.88	1.88
9250	16.6	12.74	1.96
9500	16.6	12.43	2.06
9750	16.9	12.33	2.14
10000	17.1	12.14	2.24
10250	17.2	11.89	2.34
10500	17.4	11.77	2.44
10750	17.5	11.53	2.54
11000	17.6	11.33	2.64
11169	17.6	11.22	2.70
11250	17.6	11.08	2.74
11500	17.3	10.63	2.86

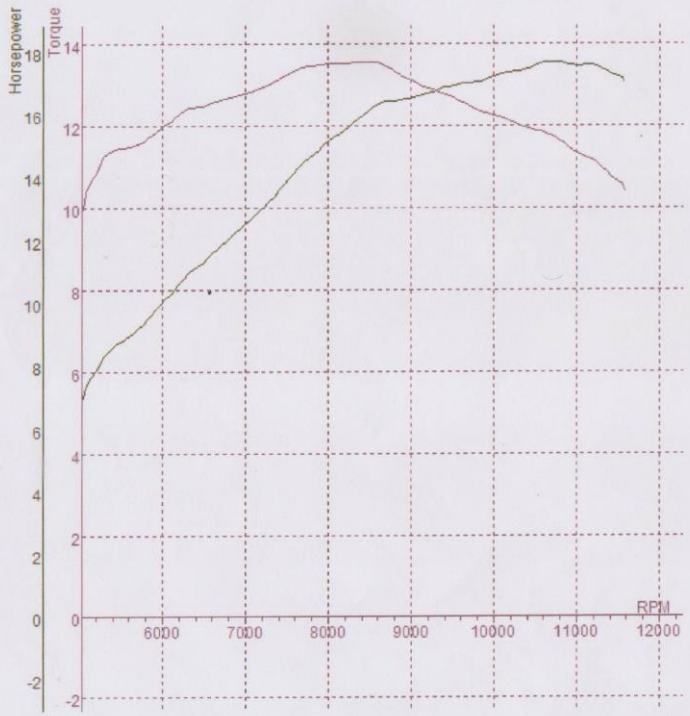
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.6HP	13.42N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T028	17.7 (17.7) / 10713	13.56 (13.56) / 8480	34.0 °C	45 %	1000.0 mbar	84.3	3/29/2018 3:43:59 PM



DATA FOR TEST: UMY DYNO TEST CB150 STD T028

Comments
MPX1

RPM	HP (HP)	TQ (N*M*M)	T
4500	7.3	10.36	0.52
4750	7.6	10.66	0.54
5000	7.9	10.89	0.56
5250	8.3	11.22	0.60
5500	8.8	11.44	0.68
5750	9.3	11.59	0.78
6000	10.1	12.01	0.88
6250	10.8	12.37	0.96
6500	11.4	12.51	1.06
6750	12.0	12.67	1.14
7000	12.6	12.82	1.24
7250	13.2	13.01	1.32
7500	14.0	13.26	1.40
7750	14.6	13.44	1.48
8000	15.2	13.51	1.58
8250	15.7	13.54	1.66
8480	16.1	13.56	1.72
8500	16.2	13.56	1.74
8750	16.4	13.38	1.82
9000	16.5	13.06	1.92
9250	16.7	12.87	2.00
9500	16.9	12.66	2.10
9750	17.0	12.38	2.20
10000	17.2	12.25	2.28
10250	17.4	12.04	2.38
10500	17.6	11.88	2.48
10713	17.7	11.73	2.56
10750	17.7	11.67	2.58
11000	17.5	11.28	2.70
11250	17.5	11.01	2.80
11500	17.2	10.62	2.90

LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.7HP	13.56N*M*M

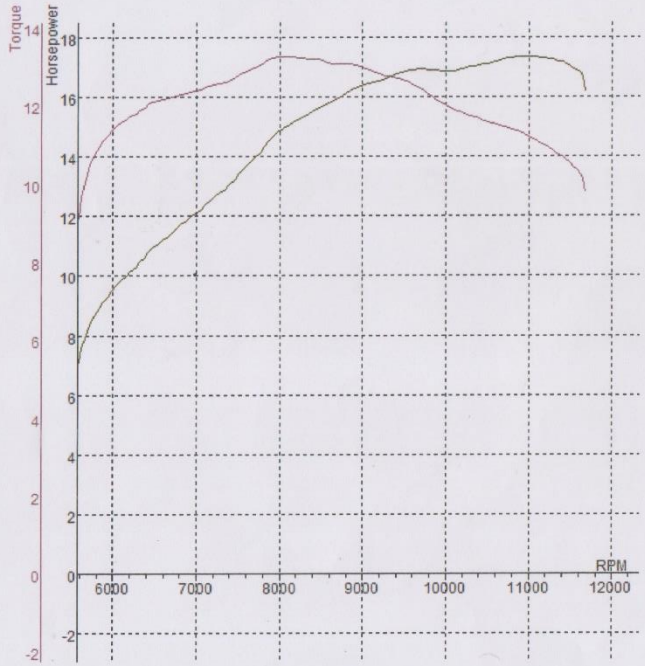
Lampiran 8. Data Pengujian Torsi dan Daya Minyak Pelumas Shell Advance AX7

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T004	17.4 (17.4) / 10945	13.26 (13.26) / 8056	31.8 °C	59 %	1000.0 mbar	84.2	4/2/2018 10:32:50 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T004

Comments
SEL AE7

RPM	HP (HP)	TQ (N*M*M)	T
5000	7.6	9.68	0.52
5250	8.0	10.14	0.54
5500	8.4	10.49	0.56
5750	8.7	10.76	0.58
6000	9.7	11.48	0.68
6250	10.3	11.80	0.76
6500	11.1	12.13	0.86
6750	11.6	12.27	0.94
7000	12.2	12.42	1.04
7250	12.8	12.57	1.12
7500	13.4	12.78	1.20
7750	14.1	13.04	1.28
8000	14.9	13.26	1.38
8056	14.9	13.26	1.38
8250	15.3	13.21	1.46
8500	15.7	13.15	1.54
8750	16.0	13.06	1.62
9000	16.4	12.95	1.72
9250	16.6	12.77	1.80
9500	16.9	12.62	1.90
9750	16.9	12.30	2.00
10000	16.8	11.94	2.10
10250	17.0	11.78	2.18
10500	17.1	11.58	2.28
10750	17.3	11.43	2.38
10945	17.4	11.27	2.46
11000	17.3	11.15	2.50
11250	17.2	10.86	2.60
11500	16.9	10.42	2.72

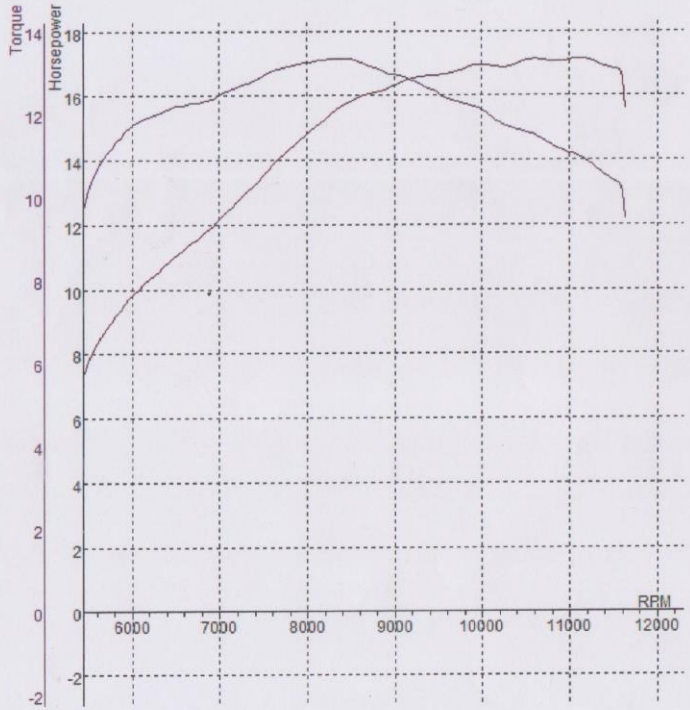
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.4HP	13.26N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T007	17.2 (17.2) / 11133	13.33 (13.33) / 8377	32.3 °C	57 %	1000.0 mbar	84.1	4/2/2018 10:35:42 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T007

Comments
SELAE7

RPM	HP (HP)	TQ (N*M*M)	T
5000	7.8	10.15	0.52
5250	8.1	10.44	0.54
5500	8.3	10.67	0.56
5750	9.0	11.18	0.62
6000	9.9	11.76	0.72
6250	10.6	12.01	0.82
6500	11.1	12.18	0.90
6750	11.6	12.26	0.98
7000	12.2	12.48	1.08
7250	12.9	12.69	1.16
7500	13.7	12.97	1.26
7750	14.3	13.14	1.34
8000	14.9	13.24	1.42
8250	15.4	13.31	1.50
8377	15.6	**13.33**	1.54
8500	15.9	13.28	1.60
8750	16.1	13.09	1.68
9000	16.4	12.90	1.78
9250	16.6	12.73	1.86
9500	16.6	12.42	1.96
9750	16.8	12.25	2.04
10000	17.0	12.06	2.14
10250	16.9	11.69	2.24
10500	17.1	11.55	2.34
10750	17.1	11.22	2.46
11000	17.1	11.02	2.56
11133	**17.2**	10.95	2.60
11250	17.1	10.75	2.66
11500	16.8	10.34	2.78

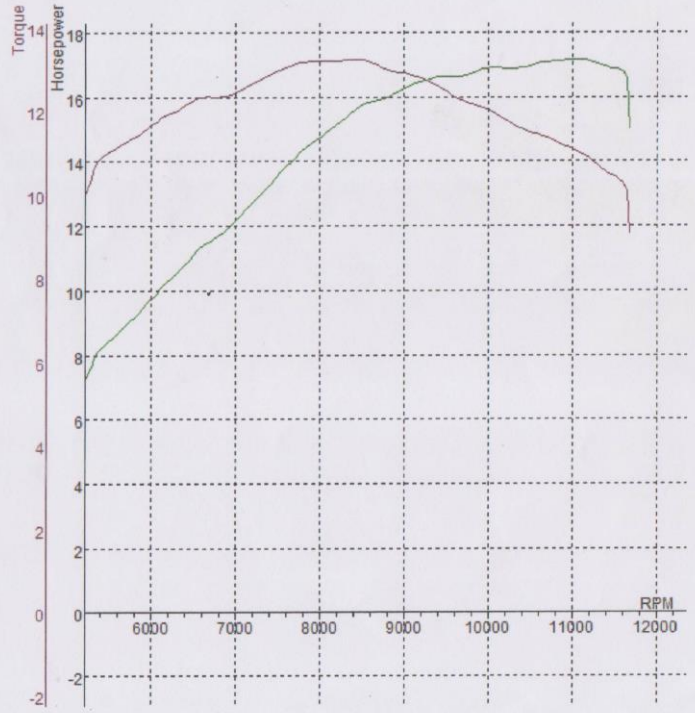
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.2HP	13.33N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T016	17.2 (17.2) / 11069	13.23 (13.23) / 8470	32.8 °C	56 %	1000.0 mbar	84.2	4/2/2018 10:40:55 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T016

Comments
SELAE7

RPM	HP (HP)	TQ (N*M*M)	T
4500	7.6	10.39	0.52
4750	7.9	10.64	0.54
5000	8.1	10.81	0.56
5250	8.3	10.92	0.58
5500	8.5	11.06	0.62
5750	9.2	11.36	0.72
6000	9.8	11.67	0.80
6250	10.5	11.99	0.90
6500	11.3	12.32	1.00
6750	11.7	12.33	1.08
7000	12.2	12.45	1.16
7250	13.0	12.76	1.26
7500	13.7	12.98	1.34
7750	14.3	13.15	1.42
8000	14.8	13.18	1.50
8250	15.4	13.21	1.60
8470	15.7	**13.23**	1.66
8500	15.8	13.22	1.68
8750	15.9	13.00	1.76
9000	16.3	12.87	1.86
9250	16.5	12.73	1.94
9500	16.6	12.44	2.04
9750	16.7	12.17	2.14
10000	16.9	11.99	2.24
10250	16.9	11.67	2.34
10500	17.0	11.47	2.44
10750	17.1	11.27	2.54
11000	17.2	11.06	2.64
11069	**17.2**	11.02	2.66
11250	17.0	10.70	2.76
11500	16.9	10.39	2.86

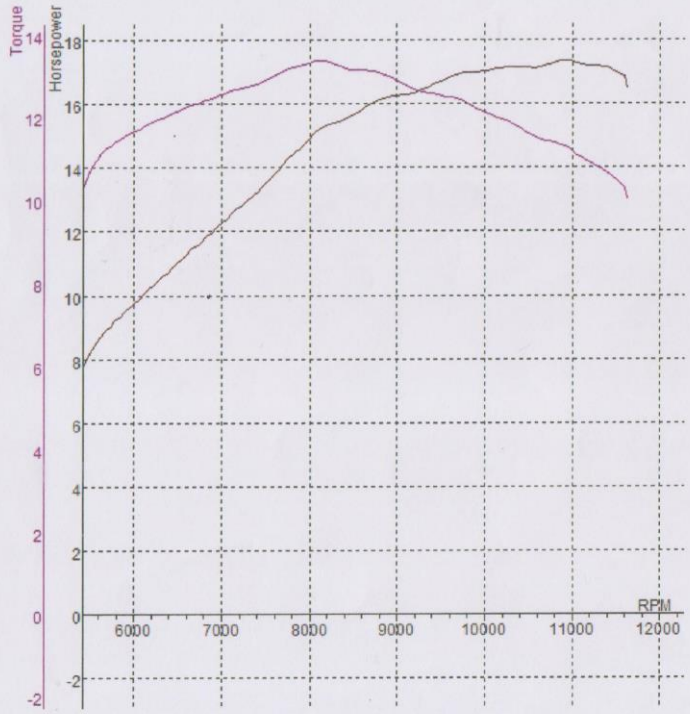
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.2HP	13.23N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T021	17.4 (17.4) / 10921	13.37 (13.37) / 8110	33.0 °C	52 %	1000.0 mbar	84.1	4/2/2018 10:43:35 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T021

Comments
SELAE7

RPM	HP (HP)	TQ (N*M*M)	T
4750	8.1	10.61	0.52
5000	8.3	10.83	0.54
5250	8.5	10.99	0.56
5500	8.7	11.12	0.58
5750	9.2	11.40	0.64
6000	9.9	11.71	0.74
6250	10.5	11.94	0.82
6500	11.2	12.20	0.92
6750	11.7	12.38	1.00
7000	12.4	12.60	1.10
7250	13.0	12.72	1.18
7500	13.6	12.92	1.26
7750	14.3	13.16	1.34
8000	14.9	13.31	1.42
8110	15.2	13.37	1.46
8250	15.4	13.28	1.52
8500	15.7	13.13	1.60
8750	16.1	13.07	1.70
9000	16.3	12.86	1.78
9250	16.4	12.61	1.88
9500	16.7	12.52	1.96
9750	17.0	12.37	2.06
10000	17.0	12.08	2.16
10250	17.2	11.86	2.26
10500	17.1	11.55	2.36
10750	17.3	11.39	2.46
10921	17.4	11.29	2.52
11000	17.3	11.16	2.56
11250	17.2	10.80	2.68
11500	17.0	10.46	2.78

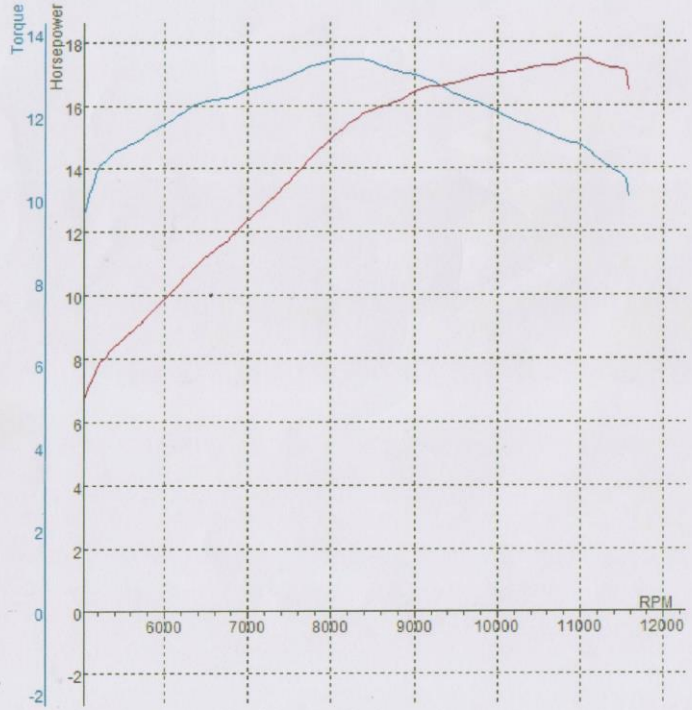
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.4HP	13.37N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T027	17.5 (17.5) / 11028	13.40 (13.40) / 8203	33.2 °C	51 %	1000.0 mbar	84.1	4/2/2018 10:46:29 AM



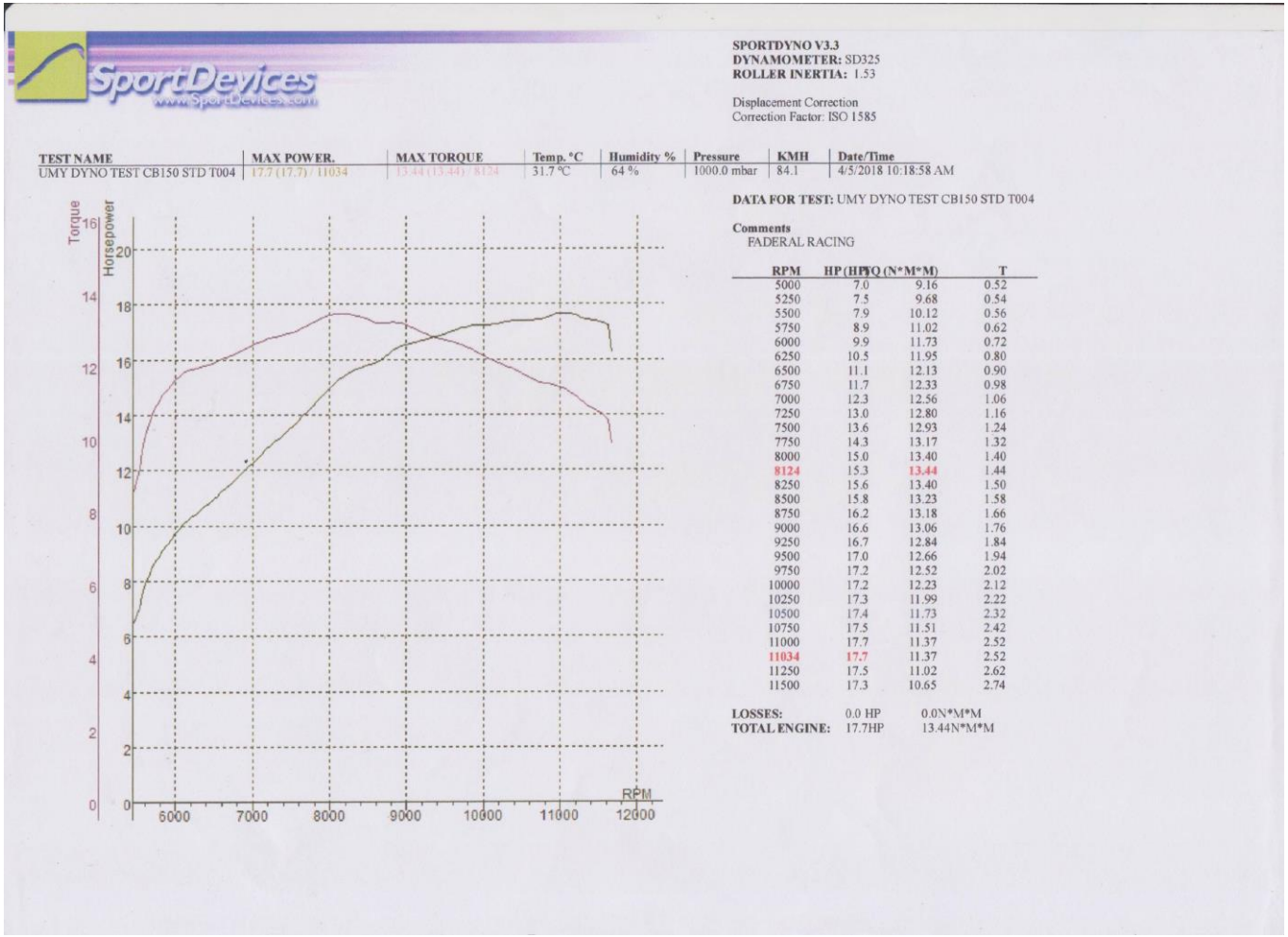
DATA FOR TEST: UMY DYNO TEST CB150 STD T027

Comments
SELAE7

RPM	HP (HP)	TQ (N*M*M)	T
4500	7.2	10.13	0.52
4750	7.5	10.45	0.54
5000	7.7	10.68	0.56
5250	8.1	10.96	0.60
5500	8.7	11.28	0.70
5750	9.3	11.52	0.78
6000	10.0	11.86	0.88
6250	10.6	12.14	0.96
6500	11.3	12.39	1.06
6750	11.7	12.46	1.14
7000	12.4	12.67	1.24
7250	13.0	12.80	1.32
7500	13.6	12.97	1.40
7750	14.4	13.24	1.50
8000	15.0	13.36	1.58
8203	15.4	**13.40**	1.64
8250	15.5	13.40	1.66
8500	15.9	13.29	1.76
8750	16.1	13.09	1.84
9000	16.5	12.98	1.94
9250	16.6	12.78	2.02
9500	16.7	12.50	2.12
9750	16.9	12.29	2.22
10000	17.0	12.05	2.32
10250	17.1	11.85	2.40
10500	17.2	11.66	2.50
10750	17.3	11.41	2.62
11000	17.5	11.26	2.72
11028	**17.5**	11.26	2.72
11250	17.2	10.88	2.82
11500	17.1	10.55	2.94

LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.5HP	13.40N*M*M

Lampiran 9. Data Pengujian Torsi dan Daya Minyak Pelumas Federal Racing



SportDevices
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SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T004	17.7 (17.7) / 11034	13.44 (13.44) / 8124	31.7 °C	64 %	1000.0 mbar	84.1	4/5/2018 10:18:58 AM

DATA FOR TEST: UMY DYNO TEST CB150 STD T004

Comments
FADERAL RACING

RPM	HP (HP)	TQ (N*M*M)	T
5000	7.0	9.16	0.52
5250	7.5	9.68	0.54
5500	7.9	10.12	0.56
5750	8.9	11.02	0.62
6000	9.9	11.73	0.72
6250	10.5	11.95	0.80
6500	11.1	12.13	0.90
6750	11.7	12.33	0.98
7000	12.3	12.56	1.06
7250	13.0	12.80	1.16
7500	13.6	12.93	1.24
7750	14.3	13.17	1.32
8000	15.0	13.40	1.40
8124	15.3	13.44	1.44
8250	15.6	13.40	1.50
8500	15.8	13.23	1.58
8750	16.2	13.18	1.66
9000	16.6	13.06	1.76
9250	16.7	12.84	1.84
9500	17.0	12.66	1.94
9750	17.2	12.52	2.02
10000	17.2	12.23	2.12
10250	17.3	11.99	2.22
10500	17.4	11.73	2.32
10750	17.5	11.51	2.42
11000	17.7	11.37	2.52
11034	17.7	11.37	2.52
11250	17.5	11.02	2.62
11500	17.3	10.65	2.74

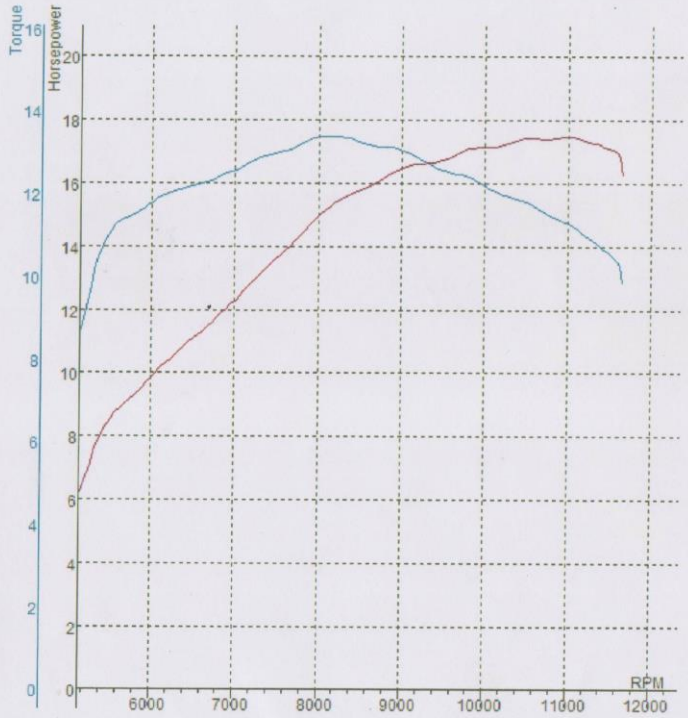
LOSSES: 0.0 HP 0.0N*M*M
TOTAL ENGINE: 17.7HP 13.44N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T008	17.5 (17.5) / 11024	13.40 (13.40) / 8194	31.7 °C	64 %	1000.0 mbar	84.2	4/5/2018 10:21:41 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T008

Comments
FADERAL RACING

RPM	HP (HP)	TQ (N*M*M)	T
4500	6.7	9.26	0.52
4750	7.1	9.74	0.54
5000	7.5	10.15	0.56
5250	7.8	10.48	0.58
5500	8.6	11.13	0.64
5750	9.3	11.50	0.74
6000	9.9	11.79	0.82
6250	10.6	12.07	0.92
6500	11.1	12.20	1.00
6750	11.7	12.39	1.10
7000	12.3	12.59	1.18
7250	13.0	12.82	1.26
7500	13.7	13.02	1.36
7750	14.4	13.20	1.44
8000	15.0	13.38	1.52
8194	15.4	13.40	1.58
8250	15.5	13.39	1.60
8500	15.8	13.23	1.70
8750	16.2	13.14	1.78
9000	16.5	13.06	1.86
9250	16.6	12.79	1.96
9500	16.8	12.53	2.06
9750	17.1	12.44	2.14
10000	17.1	12.17	2.24
10250	17.3	11.94	2.34
10500	17.5	11.78	2.44
10750	17.4	11.47	2.54
11000	17.5	11.28	2.64
11024	17.5	11.28	2.64
11250	17.3	10.93	2.74
11500	17.1	10.51	2.86

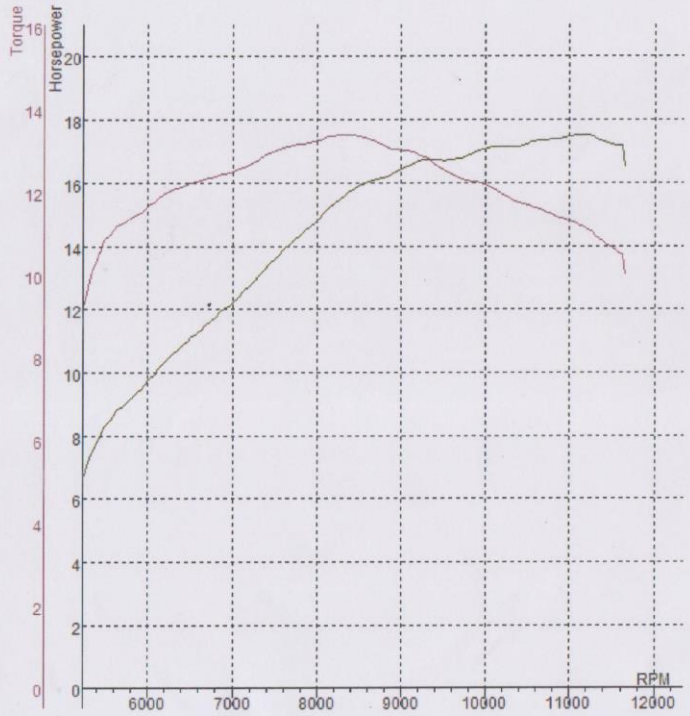
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.5HP	13.40N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T012	17.5 (17.5) / 11116	13.39 (13.39) / 8379	33.0 °C	53 %	1000.0 mbar	84.1	4/5/2018 10:24:28 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T012

Comments
FADERAL RACING

RPM	HP (HP)	TQ (N*M*M)	T
4750	7.2	9.72	0.52
5000	7.5	10.08	0.54
5250	7.8	10.38	0.56
5500	8.5	10.98	0.62
5750	9.2	11.37	0.72
6000	9.8	11.68	0.80
6250	10.6	12.05	0.90
6500	11.1	12.22	0.98
6750	11.7	12.38	1.08
7000	12.3	12.51	1.16
7250	12.9	12.72	1.24
7500	13.7	13.02	1.34
7750	14.3	13.15	1.42
8000	14.9	13.26	1.50
8250	15.5	13.38	1.58
8379	15.7	**13.39**	1.62
8500	16.0	13.33	1.68
8750	16.2	13.12	1.76
9000	16.5	12.99	1.86
9250	16.7	12.84	1.94
9500	16.7	12.46	2.04
9750	16.8	12.28	2.12
10000	17.1	12.15	2.22
10250	17.1	11.84	2.32
10500	17.3	11.67	2.42
10750	17.4	11.50	2.50
11000	17.5	11.26	2.62
11116	**17.5**	11.19	2.66
11250	17.5	11.01	2.72
11500	17.2	10.58	2.84

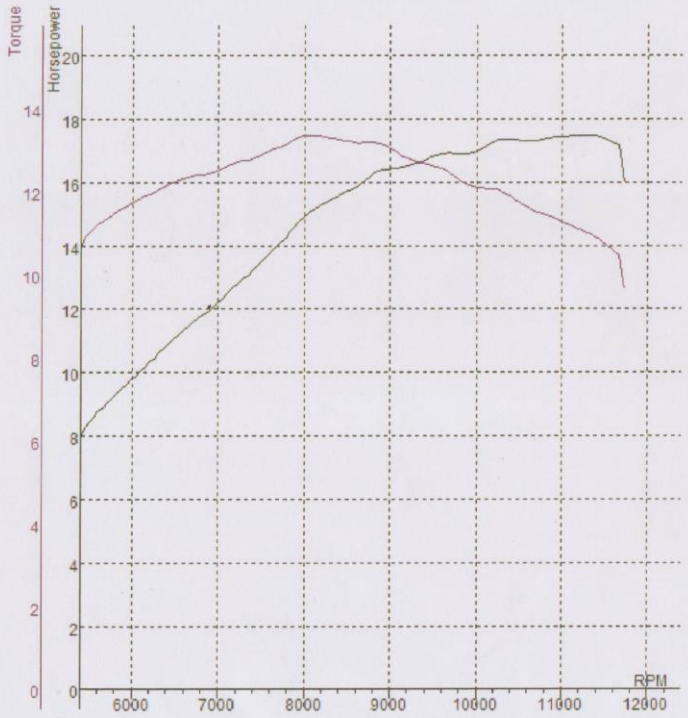
LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.5HP	13.39N*M*M

SportDevices
www.SportDevices.com

SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T020	17.5 (17.5) / 11298	13.34 (13.34) / 8057	33.1 °C	53 %	1000.0 mbar	84.4	4/5/2018 10:27:50 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T020

Comments
FADERAL RACING

RPM	HP (HP)	TQ (N*M*M)	T
4750	8.3	10.89	0.52
5000	8.4	11.02	0.54
5250	8.6	11.13	0.56
5500	8.8	11.22	0.58
5750	9.2	11.44	0.64
6000	9.9	11.76	0.74
6250	10.5	11.99	0.82
6500	11.2	12.26	0.92
6750	11.7	12.38	1.00
7000	12.4	12.54	1.10
7250	12.9	12.72	1.18
7500	13.6	12.91	1.26
7750	14.2	13.12	1.34
8000	14.9	13.33	1.42
8057	15.0	13.34	1.44
8250	15.4	13.28	1.52
8500	15.7	13.19	1.60
8750	16.2	13.17	1.68
9000	16.4	12.98	1.78
9250	16.5	12.74	1.86
9500	16.8	12.60	1.96
9750	16.9	12.28	2.06
10000	17.0	12.08	2.14
10250	17.3	12.01	2.24
10500	17.3	11.71	2.34
10750	17.3	11.45	2.44
11000	17.4	11.25	2.54
11250	17.5	11.03	2.64
11298	17.5	10.99	2.66
11500	17.3	10.68	2.76

LOSSES:	0.0 HP	0.0N*M*M
TOTAL ENGINE:	17.5HP	13.34N*M*M

SportDevices
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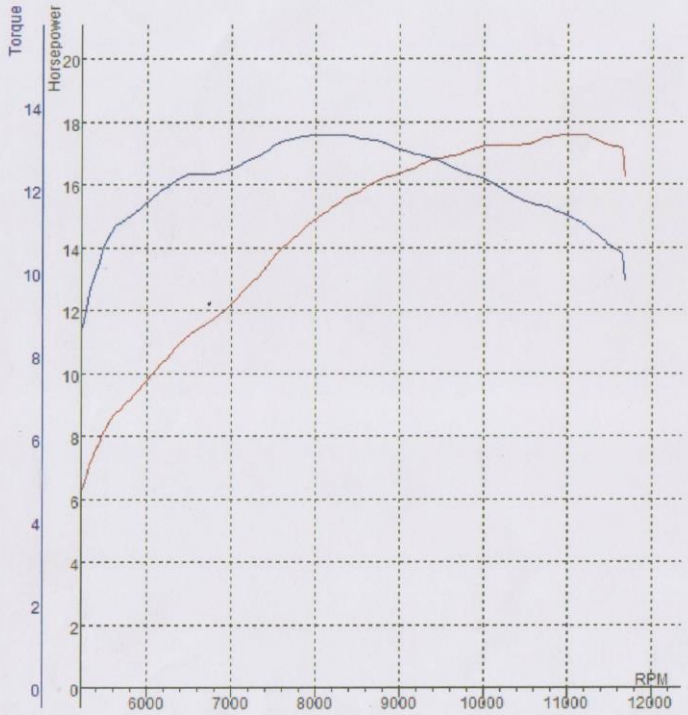
SPORTDYNO V3.3
DYNAMOMETER: SD325
ROLLER INERTIA: 1.53

Displacement Correction
Correction Factor: ISO 1585

TEST NAME	MAX POWER.	MAX TORQUE	Temp. °C	Humidity %	Pressure	KMH	Date/Time
UMY DYNO TEST CB150 STD T025	17.6 (17.6) / 11122	13.32 (13.32) / 8259	33.3 °C	53 %	1000.0 mbar	84.3	4/5/2018 10:30:32 AM



DATA FOR TEST: UMY DYNO TEST CB150 STD T025

Comments
FADERAL RACING

RPM	HP (HP)	TQ (N*M*M)	T
4500	6.7	9.12	0.52
4750	7.1	9.54	0.54
5000	7.4	9.92	0.56
5250	7.8	10.26	0.58
5500	8.3	10.79	0.62
5750	9.2	11.37	0.72
6000	9.8	11.72	0.80
6250	10.7	12.15	0.90
6500	11.2	12.37	0.98
6750	11.7	12.39	1.08
7000	12.3	12.50	1.16
7250	12.9	12.75	1.24
7500	13.8	13.09	1.34
7750	14.4	13.25	1.42
8000	14.9	13.31	1.50
8250	15.4	13.32	1.58
8259	15.4	13.32	1.58
8500	15.8	13.23	1.68
8750	16.2	13.15	1.76
9000	16.4	12.93	1.86
9250	16.7	12.81	1.94
9500	16.9	12.60	2.04
9750	17.0	12.42	2.12
10000	17.2	12.25	2.22
10250	17.2	11.94	2.32
10500	17.3	11.68	2.42
10750	17.5	11.55	2.52
11000	17.6	11.34	2.62
11122	17.6	11.24	2.66
11250	17.5	11.06	2.72
11500	17.2	10.61	2.84

LOSSES: 0.0 HP 0.0N*M*M
TOTAL ENGINE: 17.6HP 13.32N*M*M

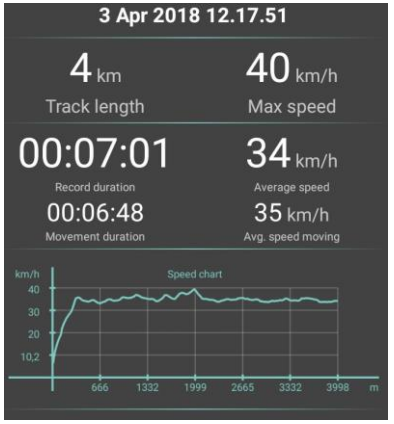
Lampiran 10. Data Pengujian Konsumsi Bahan Bakar

Sampel Oli	Jarak (Km)	Waktu (Jam)	Kecepatan (Km/Jam)	Temperatur (°C)	Volume BBM Terpakai (Liter)	Konsumsi BBM (Liter/Jam)	Rata-rata Temperatur (°C)
MPX 1 (*Mineral Oil*)	4	0,1219	33	78,9	0,203	1,66	74,32
	4,03	0,123	33	69,5	0,058	0,47	
	4	0,115	35	76,1	0,1915	1,67	
	4	0,116	34	73,8	0,05	0,43	
	4	0,1163	34	73,3	0,1443	1,24	
	Rata-rata Konsumsi BBM					1,094	
Shell Advance AX7 (*Semi Synthetic Oil*)	4	0,115	35	74,6	0,1842	1,6	73,28
	4,01	0,1138	35	71,4	0,1149	1,01	
	4	0,118	34	74	0,0367	0,31	
	4	0,1169	34	73,9	0,1082	0,92	
	4	0,1177	34	72,5	0,095	0,8	
	Rata-rata Konsumsi BBM					0,928	
Federal Racing (*Full Synthetic Oil*)	4,01	0,1161	35	71,2	0,107	0,92	71,98
	4,01	0,1166	34	72	0,11	0,94	
	4,01	0,1141	35	73,1	0,034	0,3	
	4,01	0,1166	34	72,7	0,1	0,85	
	4,02	0,1163	35	70,9	0,138	1,19	
	Rata-rata Konsumsi BBM					0,84	

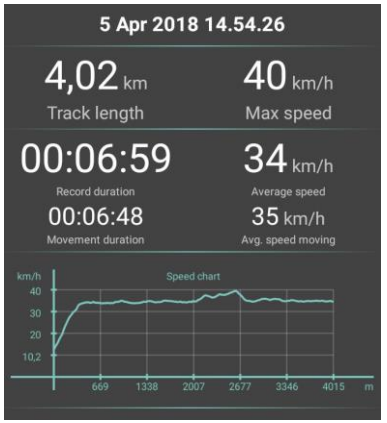
Lampiran 11. Data Pengukuran Waktu dan Jarak Tempuh

MPX 1

Shell Advance AX7



Federal Racing



Lampiran 12. *Table A-13 (Properties of Liquids)*

TABLE A–13

Properties of liquids

Temp. T, °C	Density ρ, kg/m³	Specific Heat c_p, J/kg·K	Thermal Conductivity k, W/m·K	Thermal Diffusivity α, m²/s	Dynamic Viscosity μ, kg/m·s	Kinematic Viscosity ν, m²/s	Prandtl Number Pr	Volume Expansion Coeff. β, 1/K
				Methane (CH_4)				
−160	420.2	3492	0.1863	1.270×10^{-7}	1.133×10^{-4}	2.699×10^{-7}	2.126	0.00352
−150	405.0	3580	0.1703	1.174×10^{-7}	9.169×10^{-5}	2.264×10^{-7}	1.927	0.00391
−140	388.8	3700	0.1550	1.077×10^{-7}	7.551×10^{-5}	1.942×10^{-7}	1.803	0.00444
−130	371.1	3875	0.1402	9.749×10^{-8}	6.288×10^{-5}	1.694×10^{-7}	1.738	0.00520
−120	351.4	4146	0.1258	8.634×10^{-8}	5.257×10^{-5}	1.496×10^{-7}	1.732	0.00637
−110	328.8	4611	0.1115	7.356×10^{-8}	4.377×10^{-5}	1.331×10^{-7}	1.810	0.00841
−100	301.0	5578	0.0967	5.761×10^{-8}	3.577×10^{-5}	1.188×10^{-7}	2.063	0.01282
−90	261.7	8902	0.0797	3.423×10^{-8}	2.761×10^{-5}	1.055×10^{-7}	3.082	0.02922
				Methanol ($CH_3(OH)$)				
20	788.4	2515	0.1987	1.002×10^{-7}	5.857×10^{-4}	7.429×10^{-7}	7.414	0.00118
30	779.1	2577	0.1980	9.862×10^{-8}	5.088×10^{-4}	6.531×10^{-7}	6.622	0.00120
40	769.6	2644	0.1972	9.690×10^{-8}	4.460×10^{-4}	5.795×10^{-7}	5.980	0.00123
50	760.1	2718	0.1965	9.509×10^{-8}	3.942×10^{-4}	5.185×10^{-7}	5.453	0.00127
60	750.4	2798	0.1957	9.320×10^{-8}	3.510×10^{-4}	4.677×10^{-7}	5.018	0.00132
70	740.4	2885	0.1950	9.128×10^{-8}	3.146×10^{-4}	4.250×10^{-7}	4.655	0.00137
				Isobutane (R600a)				
−100	683.8	1881	0.1383	1.075×10^{-7}	9.305×10^{-4}	1.360×10^{-6}	12.65	0.00142
−75	659.3	1970	0.1357	1.044×10^{-7}	5.624×10^{-4}	8.531×10^{-7}	8.167	0.00150
−50	634.3	2069	0.1283	9.773×10^{-8}	3.769×10^{-4}	5.942×10^{-7}	6.079	0.00161
−25	608.2	2180	0.1181	8.906×10^{-8}	2.688×10^{-4}	4.420×10^{-7}	4.963	0.00177
0	580.6	2306	0.1068	7.974×10^{-8}	1.993×10^{-4}	3.432×10^{-7}	4.304	0.00199
25	550.7	2455	0.0956	7.069×10^{-8}	1.510×10^{-4}	2.743×10^{-7}	3.880	0.00232
50	517.3	2640	0.0851	6.233×10^{-8}	1.155×10^{-4}	2.233×10^{-7}	3.582	0.00286
75	478.5	2896	0.0757	5.460×10^{-8}	8.785×10^{-5}	1.836×10^{-7}	3.363	0.00385
100	429.6	3361	0.0669	4.634×10^{-8}	6.483×10^{-5}	1.509×10^{-7}	3.256	0.00628
				Glycerin				
0	1276	2262	0.2820	9.773×10^{-8}	10.49	8.219×10^{-3}	84,101	
5	1273	2288	0.2835	9.732×10^{-8}	6.730	5.287×10^{-3}	54,327	
10	1270	2320	0.2846	9.662×10^{-8}	4.241	3.339×10^{-3}	34,561	
15	1267	2354	0.2856	9.576×10^{-8}	2.496	1.970×10^{-3}	20,570	
20	1264	2386	0.2860	9.484×10^{-8}	1.519	1.201×10^{-3}	12,671	
25	1261	2416	0.2860	9.388×10^{-8}	0.9934	7.878×10^{-4}	8,392	
30	1258	2447	0.2860	9.291×10^{-8}	0.6582	5.232×10^{-4}	5,631	
35	1255	2478	0.2860	9.195×10^{-8}	0.4347	3.464×10^{-4}	3,767	
40	1252	2513	0.2863	9.101×10^{-8}	0.3073	2.455×10^{-4}	2,697	
				Engine Oil (unused)				
0	899.0	1797	0.1469	9.097×10^{-8}	3.814	4.242×10^{-3}	46,636	0.00070
20	888.1	1881	0.1450	8.680×10^{-8}	0.8374	9.429×10^{-4}	10,863	0.00070
40	876.0	1964	0.1444	8.391×10^{-8}	0.2177	2.485×10^{-4}	2,962	0.00070
60	863.9	2048	0.1404	7.934×10^{-8}	0.07399	8.565×10^{-5}	1,080	0.00070
80	852.0	2132	0.1380	7.599×10^{-8}	0.03232	3.794×10^{-5}	499.3	0.00070
100	840.0	2220	0.1367	7.330×10^{-8}	0.01718	2.046×10^{-5}	279.1	0.00070
120	828.9	2308	0.1347	7.042×10^{-8}	0.01029	1.241×10^{-5}	176.3	0.00070
140	816.8	2395	0.1330	6.798×10^{-8}	0.006558	8.029×10^{-6}	118.1	0.00070
150	810.3	2441	0.1327	6.708×10^{-8}	0.005344	6.595×10^{-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.

Lampiran 13. Grafik Kalibrasi Qi