

## LAMPIRAN





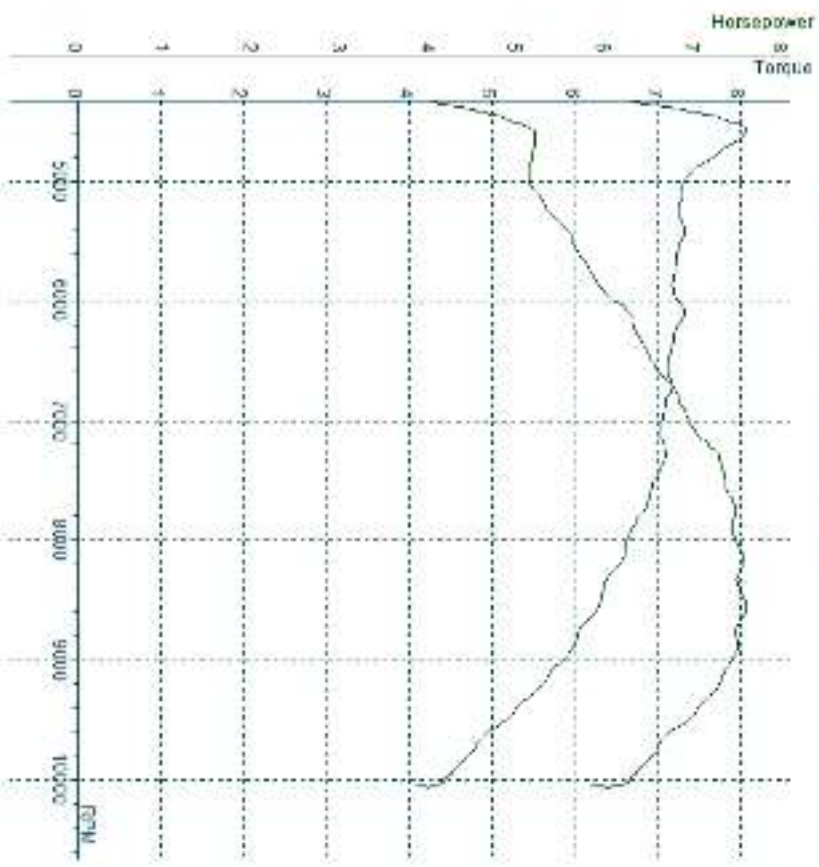




SPORTIVO V3.1  
 DVNAAC00176130172  
 RISELLENKITAL 1.446

Development Engineer  
 Operation Server: 1011-1-81  
 1021-R-LoadCell: 1002044

TEST NAME: HENSEN GRAND STD FT 1007 | MAX POWER: 7.9 (7.0) / 5543 | MAX TORQUE: 8.06 (8.00) / 4582 | Temp.: 28.5 °C | Humidity: 54 % | Pressure: 1000.0 mbar | RPM: 73.5 | Date/Time: 28.12.2025 10:31:28



DATA FOR TEST: HENSEN GRAND STD FT 1007

RPM	HP	QHP	QHP/MW	T
4000	4.2	6.95	0.32	1
4250	4.4	7.23	0.34	
4500	4.9	7.87	0.50	
4692	5.2	8.08	0.56	
4750	5.1	7.72	0.76	
5000	5.1	7.29	0.92	
5250	5.3	7.23	1.06	
5500	5.6	7.26	1.22	
5750	5.8	7.20	1.38	
6000	6.1	7.23	1.52	
6250	6.3	7.19	1.68	
6500	6.5	7.13	1.82	
6750	6.8	7.13	1.98	
7000	6.9	7.04	2.14	
7250	7.3	7.10	2.30	
7500	7.3	6.94	2.46	
7750	7.5	6.82	2.62	
8000	7.5	6.62	2.78	
8250	7.5	6.44	2.96	
8500	7.6	6.32	3.14	
8643	7.6	6.29	3.18	
8750	7.5	6.04	3.32	
9000	7.4	5.82	3.52	
9250	7.2	5.52	3.72	
9500	6.9	5.18	3.94	
9750	6.6	4.75	4.18	
10000	6.3	4.43	4.44	

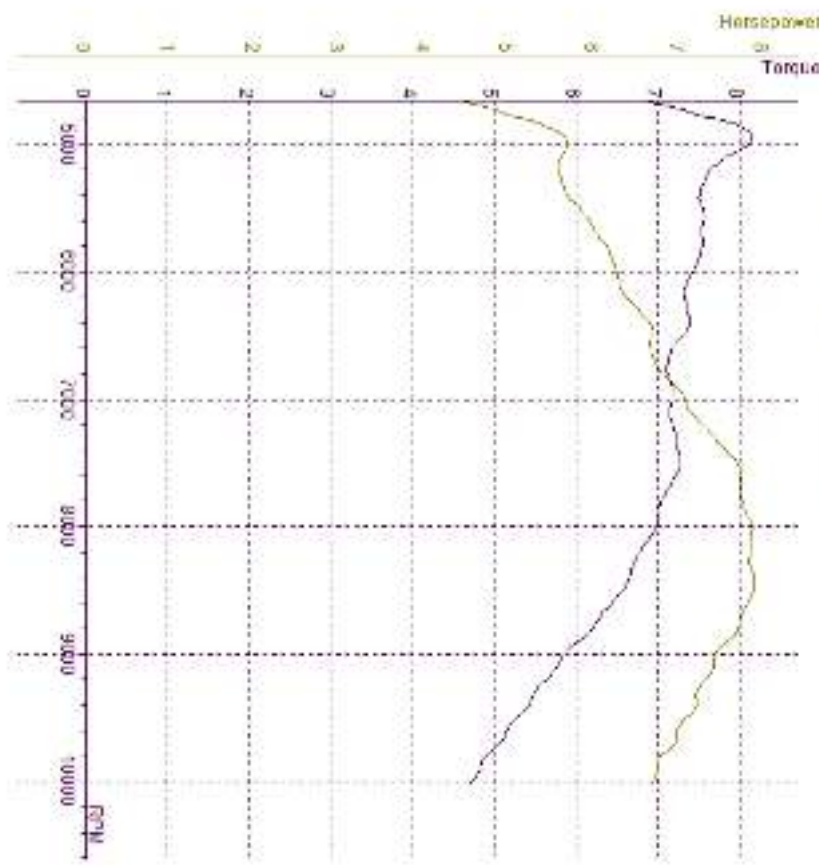
LOSSES: 0.0 HP  
 TOTAL ENGINE: 7.5HP



SPORTING V13  
 DV NAVALKARTHEM 301973  
 RISELLEN KERALA 1446

Development Location  
 Experiment Center: IRII 1581  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 2012 | MAX POWER: 499.9 HP | MAX TORQUE: 81.7 (8.17) kgm | Temp.: 28.5 °C | Humidity: 54 % | Pressure: 1000.0 mbar | RPM: 79.4 | Date/Time: 28.12.2025 10:24.15



DATA FOR TEST: ENGINE GRAND STD FT 2012

RPM	HP	g/HP	g/HP/HP	T
4250	4.6	7.10	0.32	
4500	4.8	7.51	0.34	
4750	5.0	7.59	0.36	
4940	5.7	8.17	0.56	
5000	5.7	8.05	0.72	
5250	5.6	7.57	0.56	
5500	5.8	7.55	1.06	
5750	6.1	7.55	1.14	
6000	6.3	7.42	1.50	
6250	6.5	7.56	1.46	
6500	6.7	7.27	1.66	
6750	6.8	7.10	1.76	
7000	7.1	7.18	1.96	
7250	7.4	7.25	2.06	
7500	7.7	7.28	2.22	
7750	7.7	7.09	2.36	
8000	7.9	6.95	2.54	
8250	7.8	6.71	2.70	
8438	7.9	6.62	2.82	
8500	7.8	6.59	2.88	
8750	7.7	6.29	3.08	
9000	7.4	5.88	3.24	
9250	7.2	5.50	3.46	
9500	7.1	5.26	3.66	
9750	6.9	4.98	3.88	
10000	6.7	4.72	4.12	

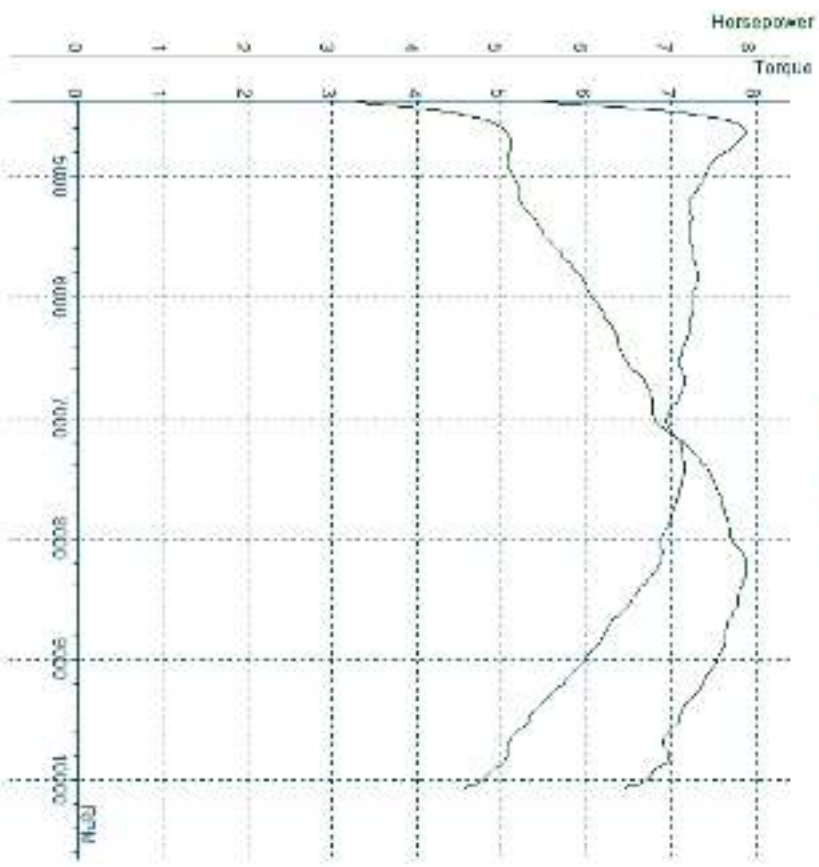
LOSSES: 0.0 HP  
 TOTAL ENGINE: 7.95P 3.173929M



SPORTINO V1.1  
 DVNA MOTORSPORTS  
 RUSSELL INKHAL 1.446

Development Location:  
 Competition Server: DJI 1.581  
 NOT RECORDED

TEST NAME: HENRY GRAND STD FT 2015 | MAX POWER: 79.7 (79) / 5342 | MAX TORQUE: 1158 (1158) / 4535 | Temp: 31 | Humidity: 54 % | Pressure: 1000.0 mbar | RPM: 73.6 | Date/Time: 28.12.2025 10:34:50



DATA FOR HENRY GRAND STD FT 2015

RPM	HP	DRPM	QV%	PM	T
4250	4.8	3.7	6.08	0.32	
4500	4.8	3.7	7.62	0.60	
4635	5.1	3.8	7.85	0.66	
4750	5.1	3.7	7.71	0.74	
5000	5.2	3.7	7.88	0.90	
5250	5.3	3.8	7.20	1.04	
5500	5.6	3.6	7.22	1.20	
5750	5.9	3.9	7.80	1.34	
6000	6.1	3.7	7.27	1.50	
6250	6.4	3.8	7.22	1.66	
6500	6.5	3.7	7.10	1.82	
6750	6.8	3.8	7.14	1.98	
7000	6.8	3.6	6.94	2.12	
7250	7.3	3.8	7.12	2.28	
7500	7.5	3.7	7.12	2.44	
7750	7.7	3.7	7.02	2.60	
8000	7.8	3.8	6.88	2.76	
8250	7.9	3.7	6.88	2.90	
8500	7.8	3.6	6.81	2.92	
8750	7.7	3.6	6.58	3.10	
9000	7.6	3.5	6.22	3.28	
9250	7.4	3.4	5.95	3.46	
9500	7.1	3.3	5.65	3.66	
9750	7.0	3.2	5.51	3.88	
10000	6.7	3.1	5.07	4.10	
			4.74	4.34	

LOSSES: 0.0 HP | 0.00% PM  
 TOTAL ENGINE: 7.9 HP | 7.88% PM

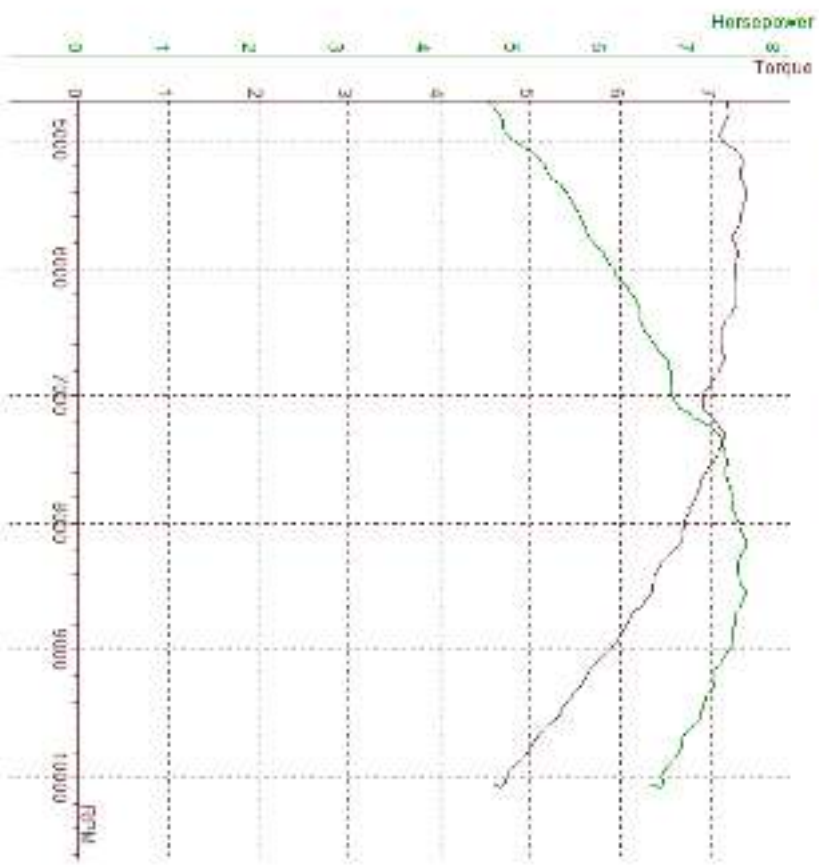




SPORTING V13  
 DV NAACHTERW. 30172  
 RIBBLE INKITAL 1.446

Development Engineer  
 Experiment No. ME 1381  
 NOT RECORDED

TEST NAME: ENGINE GRAND STD FT 1047 | MAX POWER: 77.079 HP @ 7200 | MAX TORQUE: 12.8 FT-LB @ 5417 | Temp.: 30.1 °C | Humidity: 54 | Pressure: 1000.0 mbar | MAF: 73.6 | Barometric: 28.12028 10.57 31



DATA FOR ENGINE GRAND STD FT 1047

Comments: SERIALIAN: 0101-13 SERIAL: 1

RPM	HP (BHP)	IN (N·M)	η
4250	4.7	7.18	0.52
4500	4.8	7.19	0.54
4750	4.8	7.19	0.56
5000	5.0	7.18	0.70
5250	5.4	7.52	0.81
5500	5.6	7.58	0.84
5750	5.7	7.59	1.00
6000	5.9	7.29	1.14
6250	6.1	7.28	1.20
6500	6.4	7.27	1.46
6750	6.5	7.11	1.62
7000	6.8	7.11	1.78
7250	6.8	6.91	1.92
7500	7.3	7.11	2.08
7750	7.4	7.03	2.24
8000	7.5	6.85	2.40
8250	7.6	6.70	2.58
8500	7.7	6.63	2.68
8750	7.7	6.53	2.74
9000	7.6	6.38	2.82
9250	7.5	6.07	3.12
9500	7.4	5.88	3.30
9750	7.3	5.58	3.50
10000	7.1	5.32	3.72
10000	6.9	4.99	3.96
10000	6.7	4.74	4.18

LOSSES: 0.01%  
 TOTAL ENGINE: 7.71%  
 THROUGH: 0.28%  
 THROUGH: 4.18%



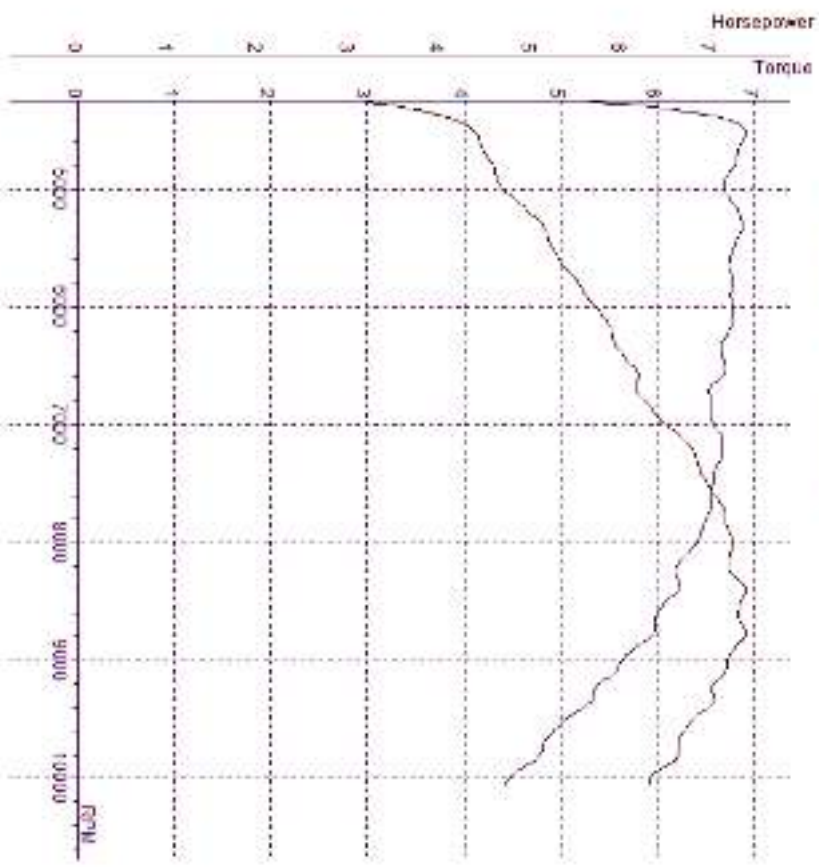




SPORTINO V13  
 DV NAACHTERW. 301972  
 RIBBLE INKITAL 1446

Development Location:  
 Experiment Server: 10111581  
 NOTE: Load Cell Installed

TEST NAME: HENSEN GRAND STD FT 1113 | MAX POWER: 74.7 (7.4) / 8754 | MAX TORQUE: 6.92 (6.92) / 4510 | Temp.: 31.2 °C | Humidity: 54 | Pressure: 1000.0 mbar | 73.7 | 28.12.2025 11:43:24



DATA FOR HENSEN GRAND STD FT 1113

Comments:  
 ETHANOL/ICE = 10/90RACET

RPM	HP (kW)	MPH (KMPH)	λ
1250	3.5	2.82	0.52
1500	4.4	3.51	0.56
1650	4.8	3.85	0.58
1750	4.5	3.61	0.52
1800	4.7	3.76	0.58
1850	5.1	4.08	1.16
1900	5.2	4.18	1.32
1950	5.5	4.38	1.48
2000	5.8	4.62	1.66
2050	5.9	4.71	1.82
2100	6.1	4.87	1.98
2150	6.2	4.95	2.16
2200	6.5	5.18	2.32
2250	6.8	5.42	2.48
2300	7.0	5.57	2.66
2350	7.1	5.63	2.82
2400	7.2	5.69	3.00
2450	7.2	5.68	3.18
2500	7.5	6.05	3.38
2550	7.4	5.95	3.56
2600	7.4	5.95	3.76
2650	7.2	5.62	3.96
2700	7.0	5.35	4.20
2750	6.7	5.02	4.44
2800	6.6	4.80	4.68
2850	6.3	4.43	4.98

LOSSES: 0.01P 0.00%  
 TOTAL ENGINE: 7.41P 6.92%  
 TOTAL: 6.3



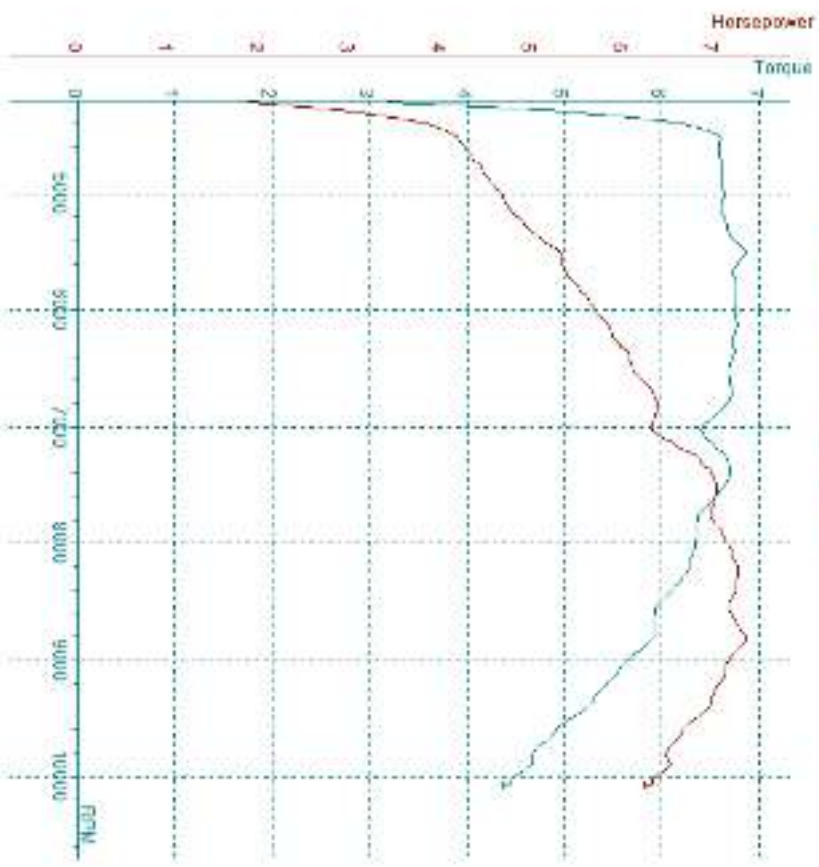
SPORTING V13  
 DV NAVALCARTER W. 30172  
 RUSSELL INKETAL 1446

Displacement (cc) 1000  
 Compression Ratio: 10:1  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1114 | MAX POWER: 74.7 HP @ 8813 | MAX TORQUE: 6.66 @ 6650 RPM | Temp.: 31.2 °C | Humidity: 78 % | Pressure: 1000.0 mbar | NH: 73.8 | Barometric Pressure: 29.12/2025 11:43:36

DATA FOR ENGINE GRAND STD FT 1114

Comments: ETHANOL/ICE = 10/90RACE



RPM	HP (kW)	ft·lb (N·m)	λ
4250	2.9	4.80	0.51
4500	4.2	6.60	0.76
4750	4.4	6.63	0.86
5000	4.7	6.63	1.04
5250	4.9	6.66	1.20
5500	5.3	6.85	1.34
5750	5.5	6.88	1.36
6000	5.7	6.75	1.52
6250	5.9	6.72	1.68
6500	6.1	6.68	1.84
6750	6.4	6.79	2.00
7000	6.5	6.65	2.18
7250	6.8	6.67	2.32
7500	7.0	6.65	2.68
7750	7.0	6.58	2.86
8000	7.2	6.54	3.04
8250	7.3	6.24	3.22
8500	7.2	5.98	3.40
8750	7.3	5.92	3.60
9000	7.4	5.91	3.64
9250	7.1	5.62	3.80
9500	7.0	5.38	4.02
9750	6.8	5.04	4.24
10000	6.5	4.79	4.48
10000	6.3	4.48	4.72

Losses: 0.01% 0.00%  
 Total Engine: 7.4HP 5.86kW



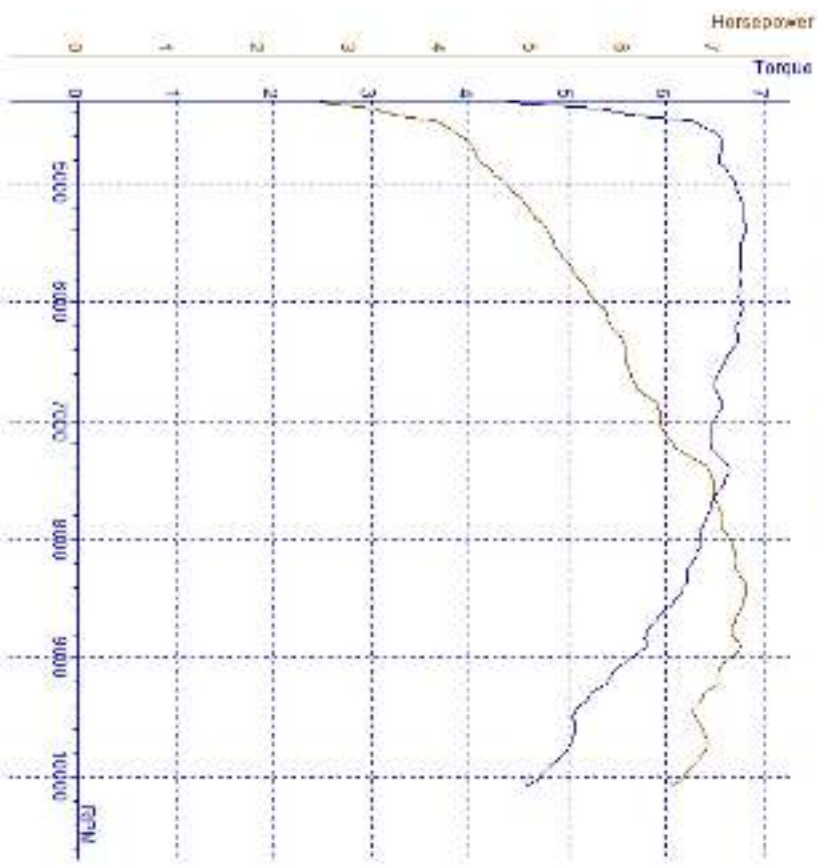
SPORTINO V13  
 DV NAACHTERW. 30172  
 RIBBELINKHAL 1446

Displacement (cc) : 1000  
 Compression Ratio: 10.1:1  
 NOTE: Load Cell Installed

TEST NAME: HISEN GRAND STD FT 1115 | MAX POWER: 73.7 HP @ 5135 | MAX TORQUE: 6.82 (6.82) @ 5404 | Temp.: 31.2 °C | Humidity: 78 % | Pressure: 1000.0 mbar | 73.7 | 28.12.2025 11:41:49

DATA FOR HISEN GRAND STD FT 1115

Comments  
 ETHANOL/ICE = 10 DEFAALT



RPM	HP (kW)	IN (N·M)	λ
4250	3.0	4.92	0.52
4500	4.0	6.33	0.64
4750	4.4	6.95	0.80
5000	4.7	6.72	0.98
5250	5.0	6.73	1.12
5404	5.2	6.82	1.22
5500	5.2	6.77	1.28
5750	5.5	6.75	1.46
6000	5.7	6.75	1.62
6250	6.0	6.74	1.80
6500	6.0	6.58	1.96
6750	6.2	6.52	2.12
7000	6.4	6.48	2.30
7250	6.6	6.50	2.46
7500	7.0	6.60	2.64
7750	7.1	6.45	2.82
8000	7.2	6.35	3.00
8250	7.2	6.22	3.16
8500	7.3	6.21	3.32
8750	7.3	6.08	3.56
9000	7.2	5.80	3.56
9250	7.1	5.62	3.74
9500	7.0	5.32	3.96
9750	6.8	5.05	4.20
10000	6.6	4.99	4.44
10000	6.6	4.68	4.68

LOSSES: 0.01P  
 TOTAL ENGINE: 7.01P  
 6.82% AT 5404



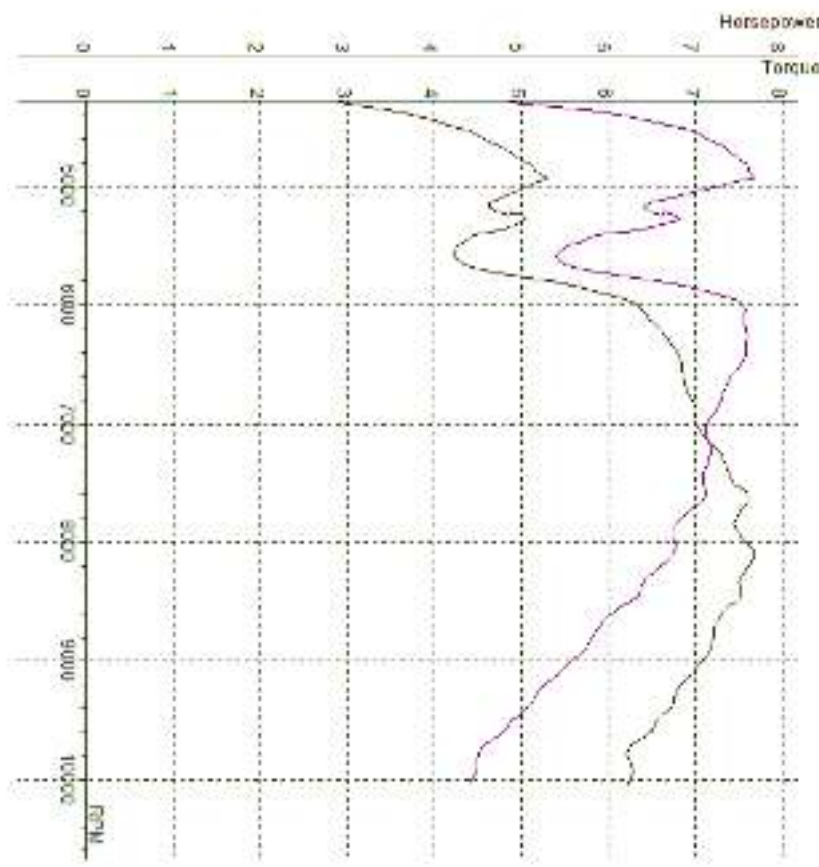
SPORTIVO V3.1  
 DV NAINCHITRIN 301972  
 KIBLLEN INKITAL 1446

Development Engineer  
 Operation Server: 10111581  
 NOT RE-LOAD DATA

TEST NAME: HENSEN GRAND STD FI 1000 | MAX POWER: 7.7 (7.7) / 5113 | MAX TORQUE: 7.67 (7.67) / 4933 | Temp. °C: 30.5 °C | Humidity %: 79 % | Pressure: 1000.0 mbar | MAF: 73.6 | Baro: 28.12.2023 11:10.03

DATA FOR HENSEN GRAND STD FI 1000

Comments: DERAILAN / DRI - 15 DERAILAT



RPM	HP (kW)	HP (kW)	HP (kW)
4250	5.1	5.22	0.52
4500	4.4	7.09	0.86
4750	5.0	7.59	0.78
5000	5.3	7.67	0.90
5250	5.1	7.21	0.98
5500	5.1	6.85	1.16
5750	4.2	5.45	1.28
6000	5.1	6.28	1.50
6250	6.4	7.55	1.64
6500	6.7	7.49	1.80
6750	6.9	7.59	1.94
7000	7.0	7.51	2.10
7250	7.3	7.13	2.26
7500	7.5	7.03	2.36
7750	7.5	6.90	2.72
8000	7.6	6.77	2.90
8250	7.7	6.73	2.96
8500	7.6	6.52	3.06
8750	7.4	6.29	3.26
9000	7.2	5.81	3.46
9250	7.1	5.58	3.64
9500	6.8	5.29	3.86
9750	6.6	4.88	4.10
10000	6.3	4.51	4.34
10000	6.3	4.42	4.60

LOSSES: 0.01%  
 TOTAL ENGINE: 7.7HP  
 0.00% TOTAL TORQUE



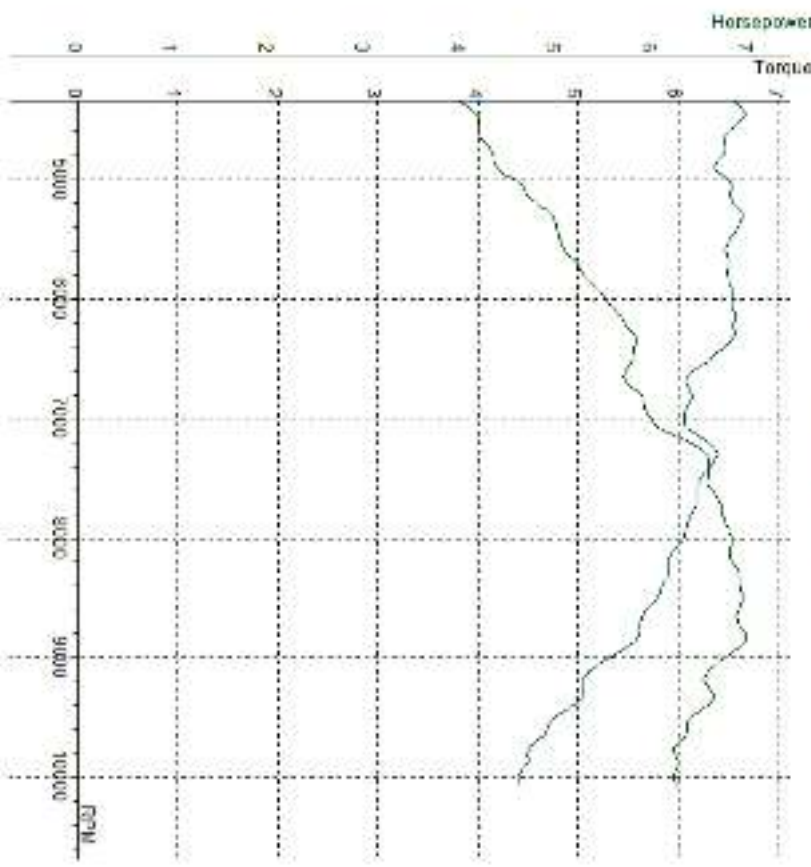
SPORIDINO V1.1  
 DV NAWAOKERTM 301972  
 KIRILLEN INKRIAL 1 446

Development Location:  
 Operation Center: IDI 1381  
 NO.1 R. LINDIARTI WEDDAD

TEST NAME: HENSEN GRAND STD FT 1064 | MAX POWER: 7.9 (7.0) / 582.4 | MAX TORQUE: 6.67 (6.67) / 442.9 | Temp.: 30.5 °C | Humidity: 54 | Pressure: 1000.0 mbar | R/H: 73.7 | Date/Time: 28/12/2025 11:10:43

DATA FOR HENSEN GRAND STD FT 1064

Comments:  
 DERRAILAN / IDI - 15 DERRAILAT



RPM	HP (kW)	(N·M)	λ
4000	4.1	6.60	0.52
4250	4.1	6.64	0.54
4500	4.2	6.67	0.58
4750	4.2	6.61	0.62
5000	4.3	6.47	0.78
5000	4.6	6.52	0.96
5250	4.9	6.62	1.12
5500	5.0	6.50	1.30
5750	5.3	6.49	1.46
6000	5.5	6.54	1.64
6250	5.8	6.56	1.80
6500	5.8	6.52	1.98
6750	5.8	6.10	2.16
7000	6.0	6.07	2.36
7250	6.5	6.39	2.52
7500	6.6	6.21	2.70
7750	6.7	6.15	2.88
8000	6.8	6.04	3.06
8250	6.9	5.91	3.26
8500	6.9	5.76	3.46
8750	7.0	5.61	3.66
9000	7.0	5.69	3.70
9000	6.7	5.30	3.86
9250	6.6	5.04	4.08
9500	6.4	4.75	4.32
9750	6.2	4.50	4.58
10000	6.2	4.39	4.82

LOSSES: 0.01P  
 TOTAL ENGINE: 7.01P

0.00WATP  
 6.87WATP



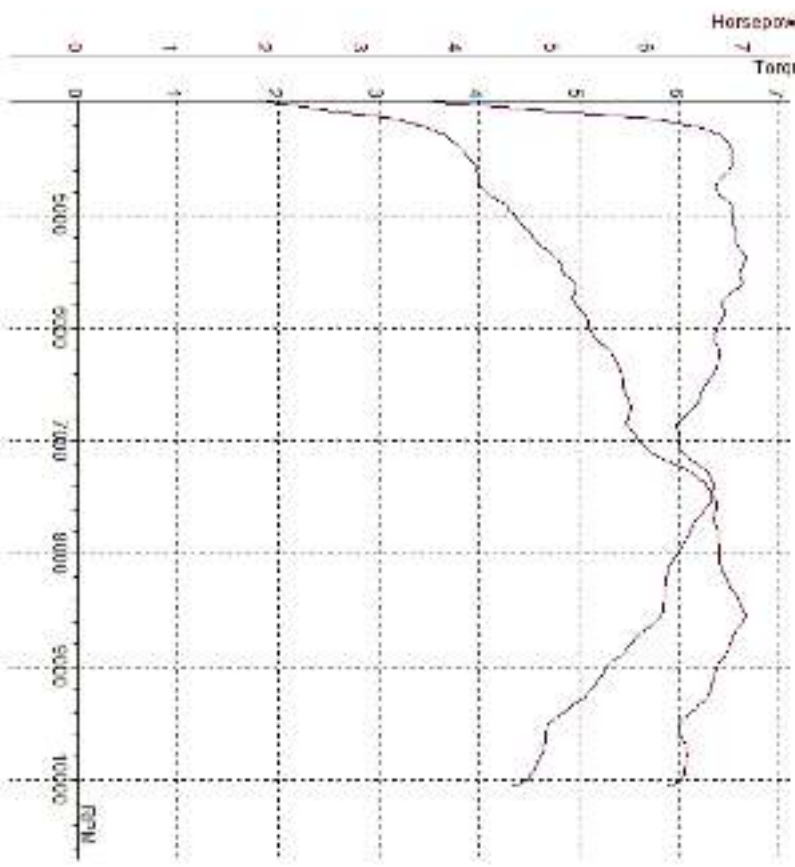
Departemen Teknik Mesin  
 Di Bina oleh Departemen Teknik Mesin, Universitas  
 Sumatera Selatan

SPORTING V13  
 DV NAWAOKITRIM 301923  
 RUSLEINIKRIAL 1446

Development Engineer  
 Operation Center: 081 1381  
 1021 R. LINDIARTI 1021044

TEST NAME: ENGINE GRAND STD FT 1065 | MAX POWER: 7.0 (7.0) / 5515 | MAX TORQUE: 6.66 (6.66) / 5385 | Temp.: 30.5 °C | Humidity: 79 % | Pressure: 1000.0 mbar | N/AH: 73.6 | Date/Time: 28.12.2025 11:13.06

DATA FOR ENGINE GRAND STD FT 1065



Comments: PERALAMAN 01001-15 DERALAT

RPM	HP (kW)	N/AH (kWh)	η
4070	2.8	4.22	0.52
4250	3.8	6.35	0.58
4500	4.1	6.52	0.64
4750	4.3	6.37	1.02
5000	4.6	6.53	1.20
5250	4.9	6.58	1.26
5500	5.0	6.66	1.64
5590	5.1	6.69	1.52
5750	5.2	6.43	1.70
6000	5.4	6.37	1.96
6250	5.6	6.41	2.04
6500	5.7	6.25	2.22
6750	5.8	6.05	2.42
7000	5.9	5.98	2.58
7250	6.4	6.25	2.76
7500	6.7	6.33	2.94
7750	6.7	6.13	3.12
8000	6.7	5.95	3.32
8250	6.8	5.87	3.50
8500	7.0	5.83	3.70
8750	7.0	5.83	3.70
9000	6.8	5.54	3.90
9250	6.7	5.25	4.12
9500	6.6	5.05	4.34
9750	6.5	4.65	4.60
10000	6.4	4.03	4.84
10000	6.3	4.47	5.08

LOSSES: 0.01P  
 TOTAL INCOME: 7.01P  
 0.00N/AH  
 6.66KWH



Druid-Beck Motorsports  
 25 Riverside Station, Hamilton, Ontario, L8R 2R5  
 Motor & Performance Services

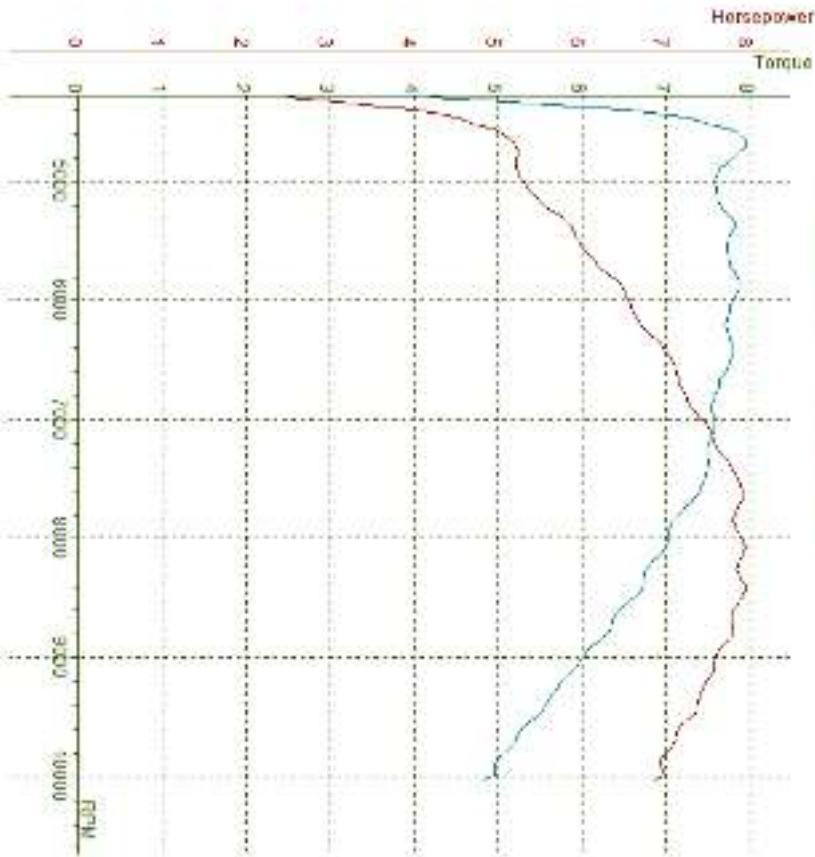
SPORTING V13  
 DYANACHTER W. 30172  
 RUSSELL INKETAL 1446

Development Location:  
 Experiment Server: 10111581  
 NOTE: Load Cell Installed

TEST NAME: HISEN GRAND STD FT 1074 | MAX POWER: 8.0 (8.0) / 5426 | MAX TORQUE: 26.5 (26.5) / 4222 | Temp.: 30.8 °C | Humidity: 78 % | Pressure: 1000.0 mbar | RPM: 73.4 | RunTime: 28.12.2025 11:21:58

DATA FOR HISEN GRAND STD FT 1074

Comments:  
 STD: ETHANOL



RPM	HP (kW)	HP (kW)	Eff
4250	3.1	3.13	0.52
4500	4.8	7.54	0.62
4692	5.2	7.95	0.72
4750	5.2	7.84	0.78
5000	5.3	7.58	0.82
5250	5.7	7.75	1.06
5500	6.0	7.74	1.20
5750	6.3	7.82	1.34
6000	6.6	7.79	1.48
6250	6.8	7.73	1.62
6500	7.1	7.77	1.76
6750	7.2	7.61	1.82
7000	7.5	7.53	2.06
7250	7.6	7.48	2.20
7500	7.9	7.46	2.26
7750	7.9	7.20	2.32
8000	7.9	7.04	2.68
8250	7.9	6.75	2.86
8436	8.0	6.71	2.86
8500	7.9	6.58	3.02
8750	7.8	6.34	3.20
9000	7.6	5.95	3.40
9250	7.5	5.71	3.58
9500	7.3	5.42	3.80
9750	7.1	5.13	4.02
10000	6.9	4.90	4.26

Losses%: 0.01E 0.00%  
 TOTAL ENGINE: 8.01E 7.96%  
 TOTAL ENGINE: 8.01E 7.96%





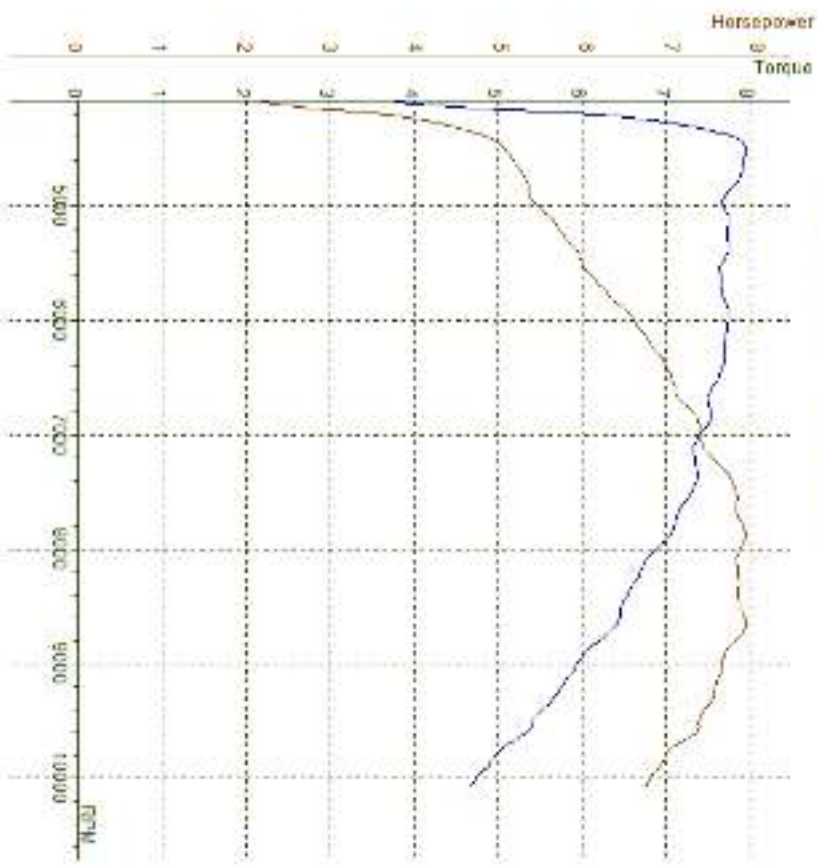
SPORTING V13  
 DVNANICHTER 301923  
 RUSSELL INKETAL 1446

Development Location:  
 Experiment Server: 1011-1381  
 1001 R. East 10th Street

TEST NAME: ENGINE GRAND STD FT 1075 | MAX POWER: 7.9 (7.5) | 8668 | MAX TORQUE: 1.95 (2.55) | 4513 | Temp.: 30.8 °C | Humidity: 78 % | Pressure: 1500.0 mbar | R/H: 73.7 | Date/Time: 28.12.2025 11:25:06

DATA FOR ENGINE GRAND STD FT 1075

Comments:  
 STD ETHANOL



RPM	HP (kW)	HP (kW)	Eff
4250	4.2	7.11	0.60
4500	5.0	7.95	0.74
4603	5.0	7.95	0.74
4750	5.2	7.85	0.68
5000	5.4	7.69	1.02
5250	5.7	7.73	1.16
5500	5.9	7.64	1.32
5750	6.2	7.67	1.46
6000	6.5	7.72	1.60
6250	6.8	7.68	1.74
6500	7.0	7.59	1.90
6750	7.2	7.53	2.04
7000	7.5	7.55	2.20
7250	7.5	7.56	2.34
7500	7.7	7.29	2.50
7750	7.8	7.10	2.66
8000	7.8	7.05	2.72
8090	7.7	6.85	2.82
8250	7.7	6.63	3.00
8500	7.7	6.46	3.16
8750	7.7	6.27	3.34
9000	7.5	5.92	3.54
9250	7.6	5.70	3.72
9500	7.5	5.41	3.94
9750	6.9	5.02	4.16
10000	6.7	4.72	4.40

Losses%: 0.01% 0.25%  
 TOTAL ENGINE: 7.81% 7.55%  
 TOTAL ENGINE: 7.81% 7.55%



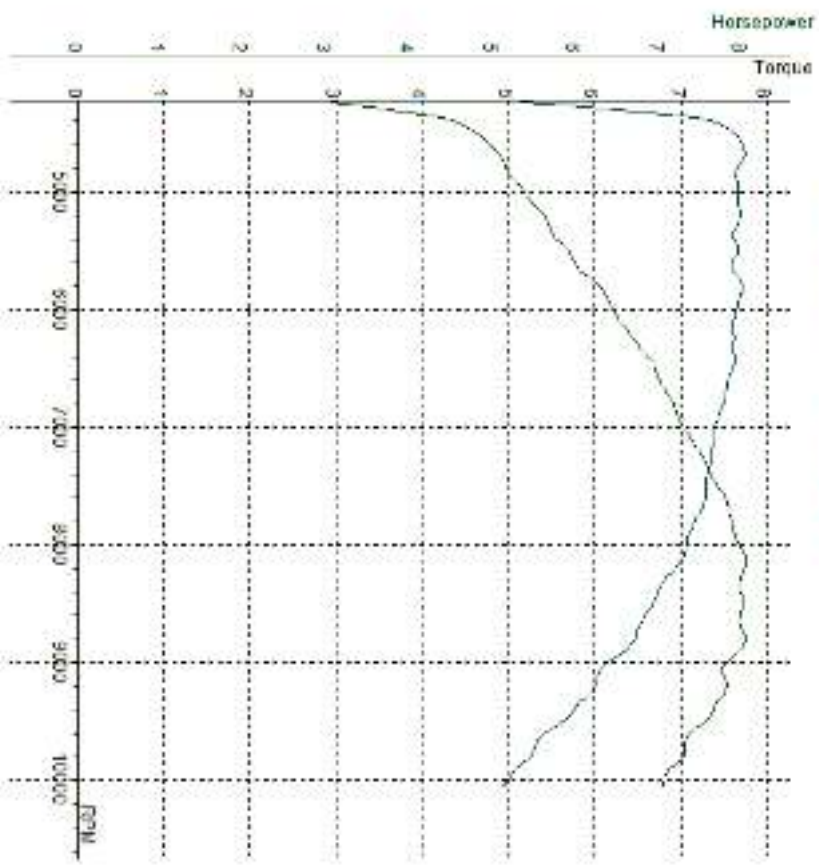
SPORTINO V1.1  
 DVNANICHTER W. 301972  
 RUSSELL INKITAL 1.446

Development Location:  
 Experiment Server: IMJ 1.581  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FI T080 | MAX POWER: 8.0 (8.0) / 5795 | MAX TORQUE: 17.6 (17.6) / 4543 | Temp.: 30.8 °C | Humidity: 78 % | Pressure: 1000.0 mbars | MPH: 73.5 | SpeedTime: 28.12.2025 11:26:02

DATA FOR ENGINE GRAND STD FI T080

Comments  
 STD ETHANOL



RPM	HP (kW)	MPH (km/h)	λ
4250	3.5	3.89	0.52
4500	4.8	5.65	0.66
4643	5.0	5.78	0.74
4750	5.1	5.70	0.80
5000	5.4	5.87	0.84
5250	5.7	6.05	1.10
5500	5.9	6.35	1.24
5750	6.2	6.69	1.38
6000	6.4	6.94	1.52
6250	6.7	7.22	1.68
6500	6.9	7.49	1.82
6750	7.1	7.59	1.98
7000	7.5	7.90	2.12
7250	7.5	7.35	2.28
7500	7.7	7.28	2.42
7750	7.9	7.19	2.58
8000	8.0	7.07	2.74
8250	8.0	6.83	2.92
8500	8.0	6.66	3.08
8750	8.0	6.48	3.26
8795	8.0	6.47	3.28
9000	7.8	6.11	3.44
9250	7.7	5.99	3.64
9500	7.5	5.58	3.84
9750	7.5	5.29	4.04
10000	7.0	4.97	4.28

LOSSES: 0.01P 0.001P  
 TOTAL ENGINE: 8.01P 77.057P2P



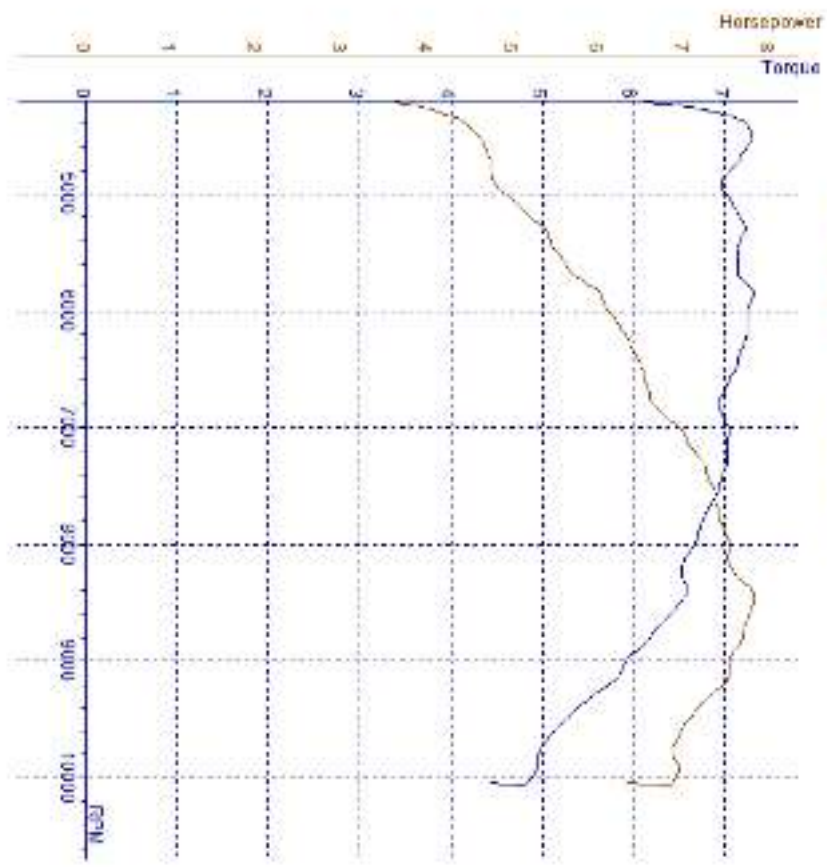
SPORTING V13  
 DV NAWAHO RTM 301923  
 RIDE IN KENTAL 1446

Displacement (cc) : 1000  
 Compression Ratio: 10.1:1  
 Model #: 1001001 (000000)

TEST NAME: HISEN GRAND STD RTM 1107  
 MAX POWER: 7.9 (7.5) 5443  
 MAX TORQUE: 7.22 (7.22) 5354  
 Temp.: 31.2 °C  
 Humidity: 78 %  
 Pressure: 1000.0 mbar  
 RPM: 73.7  
 Date/Time: 28.12.2025 11:40:11

DATA FOR HISEN GRAND STD RTM 1107

Comments: ETRANDL/DCN 45 DERALAT



RPM	HP (RTM)	NM (RTM)	η
1000	3.9	6.51	0.52
1250	4.1	6.75	0.54
1500	4.6	7.25	0.70
1750	4.7	7.03	0.96
2000	4.8	7.03	1.00
2250	5.3	7.22	1.16
2500	5.5	7.15	1.32
2750	5.9	7.23	1.46
3000	6.0	7.52	1.52
3250	6.1	7.24	1.62
3500	6.4	7.21	1.78
3750	6.5	7.12	1.82
4000	6.6	6.93	2.10
4250	6.8	7.04	2.24
4500	7.2	7.03	2.40
4750	7.4	6.94	2.58
5000	7.4	6.78	2.74
5250	7.5	6.67	2.90
5500	7.6	6.53	3.08
5750	7.8	6.58	3.20
6000	7.8	6.51	3.24
6250	7.7	6.23	3.42
6500	7.5	5.91	3.62
6750	7.4	5.63	3.82
7000	7.0	5.24	4.04
7250	6.8	4.97	4.26
7500	6.8	4.85	4.50

LOSSES: 0.012P  
 TOTAL ENGINE: 7.81P

0.0014P  
 7.22P/0.001



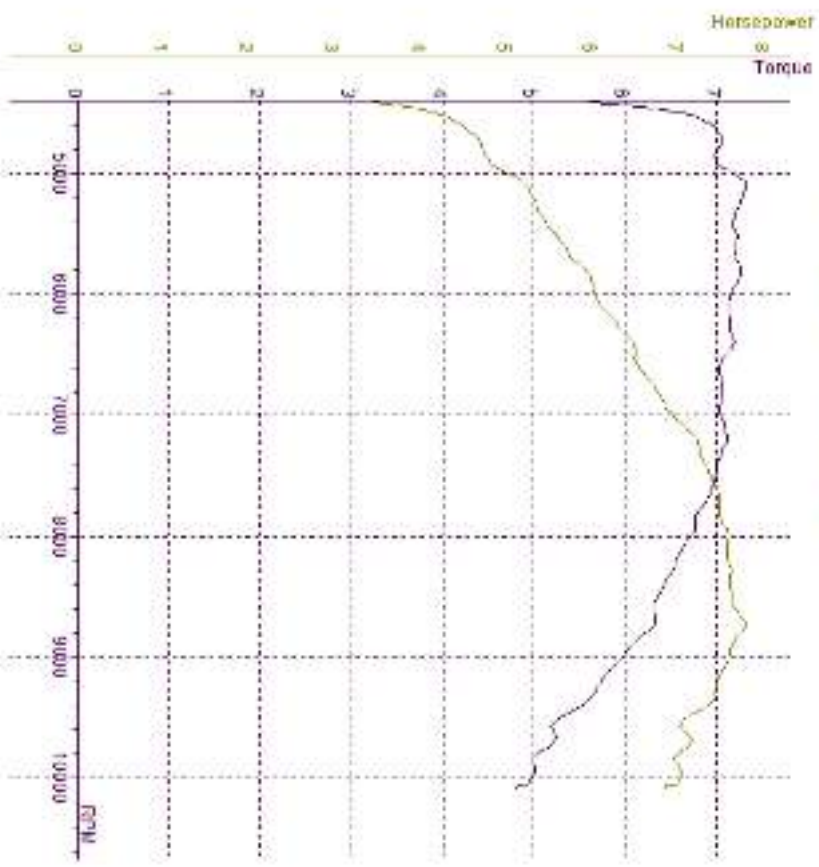
SPORTINO V13  
 DV NAVALCRAFT W. 30172  
 KILLER INSTAL 1446

Development Location:  
 Operation Center: BUI 1381  
 NOT R- Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1109 | MAX POWER: 7.12 (0.13) 5103 | MAX TORQUE: 31.2 @ 3100 | Temp.: 78.5 °C | Humidity: 78 % | Pressure: 1000.0 mbar | MAF: 73.6 | Baro: 28.12 (2028) 11:40:55

DATA FOR ENGINE GRAND STD FT 1109

Comments:  
 ETHANOL 100% 45 DEGRADAT



RPM	HP (BHP)	HP (kW)	Torque (Nm)	Efficiency (%)
4250	3.7	6.01	6.32	0.52
4500	4.2	6.72	6.58	0.58
4750	4.7	7.05	6.74	0.74
5000	5.1	7.28	6.90	0.90
5103	5.2	7.32	6.94	0.94
5250	5.4	7.23	7.06	1.06
5500	5.6	7.23	7.20	1.20
5750	5.8	7.25	7.34	1.34
6000	6.0	7.15	7.50	1.50
6250	6.3	7.15	7.66	1.66
6500	6.5	7.08	7.82	1.82
6750	6.7	7.07	7.98	1.98
7000	7.0	7.07	8.14	2.14
7250	7.2	7.07	8.30	2.30
7500	7.4	6.97	8.46	2.46
7750	7.5	6.82	8.62	2.62
8000	7.6	6.72	8.78	2.78
8250	7.6	6.53	8.94	2.94
8500	7.6	6.34	9.10	3.10
8719	7.8	6.33	9.28	3.28
8750	7.8	6.27	9.32	3.32
9000	7.6	5.96	9.50	3.50
9250	7.4	5.67	9.72	3.72
9500	7.0	5.24	9.92	3.92
9750	7.0	4.87	10.16	4.16
10000	7.0	4.49	10.36	4.36

LOSSES: 3.11%  
 TOTAL ENGINE: 4.11%  
 ECON: 1.11%  
 LOSS: 0.11%

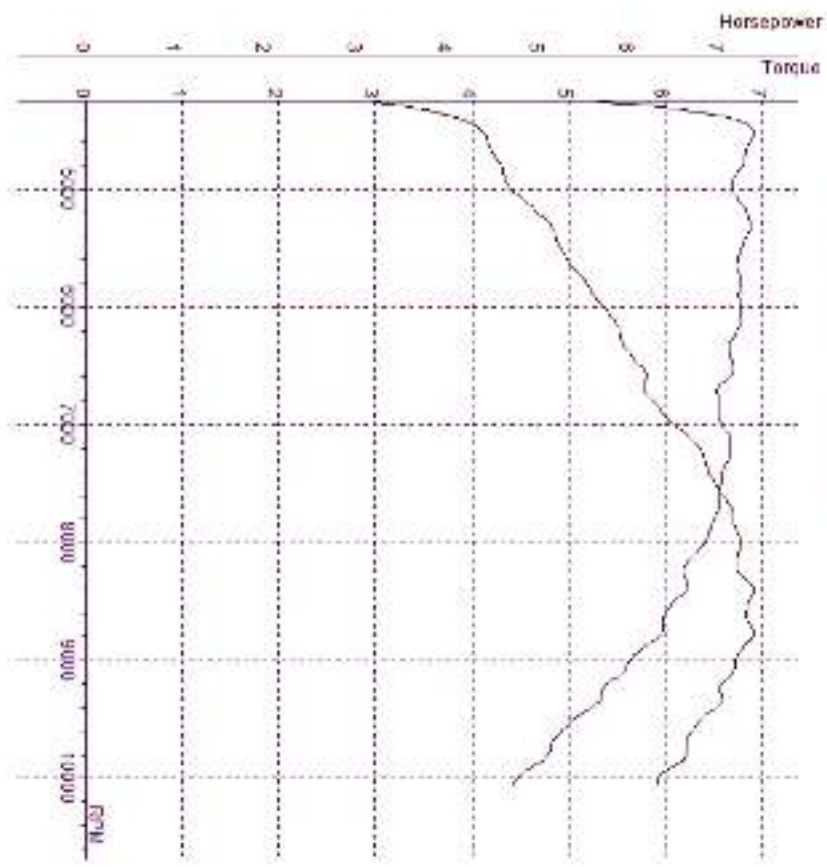




SPORTINO V13  
 DV NAANORITE W. 30172  
 RISELIN INKITAL 1.446

Development Location:  
 Experiment Server: 101.1.81  
 NOTE: Load Cell Installed

TEST NAME: HISEN GRAND STD FT 1113 | MAX POWER: 7.4 (7.4) / 8754 | MAX TORQUE: 6.92 (6.92) / 6510 | Temp.: 31.2 °C | Humidity: 54 | Pressure: 1000.0 mbar | 73.7 | 28.12.2025 11:43.24



DATA FOR HISEN GRAND STD FT 1113

Comments: ETHANOL/ICE = 10 DERRATE

RPM	HP (kW)	MPH (KMPH)	g
1250	3.5	2.82	0.52
1500	4.6	3.61	0.56
1650	4.8	3.92	0.58
1750	4.5	3.61	0.52
2000	4.7	3.69	0.58
2250	5.1	3.83	1.16
2500	5.2	3.78	1.32
2750	5.5	3.78	1.48
3000	5.8	3.79	1.66
3250	5.9	3.79	1.82
3500	6.1	3.79	1.98
3750	6.2	3.55	2.16
4000	6.5	3.69	2.32
4250	6.8	3.67	2.48
4500	7.0	3.57	2.66
4750	7.1	3.53	2.82
5000	7.2	3.49	3.00
5250	7.2	3.18	3.18
5500	7.5	3.05	3.38
5750	7.4	2.95	3.56
6000	7.4	2.95	3.56
6250	7.2	2.62	3.76
6500	7.0	2.35	3.96
6750	6.7	2.02	4.20
7000	6.6	1.89	4.44
10000	6.3	4.43	4.68

LOSSES: 0.01%  
 TOTAL ENGINE: 7.4HP  
 0.28% TOTAL  
 6.92% TOTAL



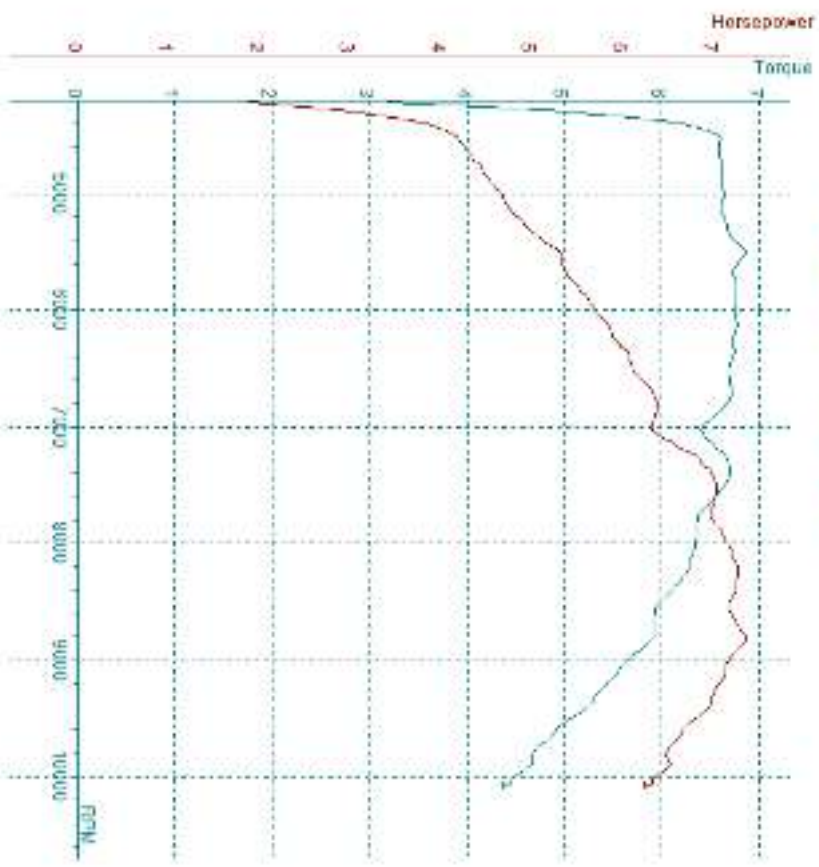
SPORTIVO V3.3  
 DV NANOCHARTER 301973  
 RISELINE SERIAL 1446

Development Location:  
 Experiment Server: DJI 1581  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1114 | MAX POWER: 74.740 / 881.3 | MAX TORQUE: 655.8655 / 2084 | Temp. °C: 31.2 | Humidity %: 78 % | Pressure: 1000.0 mbar | N/AH: 73.8 | Date/Time: 28.12.2025 11:43:36

DATA FOR ENGINE GRAND STD FT 1114

Comments:  
 ETHANOL/ICE = 10/90RACET



RPM	HP (kW)	HP (kW)	MPH
4250	2.9	4.80	0.51
4500	4.2	6.60	0.76
4750	4.4	6.63	0.86
5000	4.7	6.63	1.04
5250	4.9	6.66	1.20
5500	5.3	6.85	1.34
5750	5.5	6.85	1.52
6000	5.7	6.75	1.68
6250	5.9	6.72	1.84
6500	6.1	6.68	2.00
6750	6.4	6.79	2.18
7000	6.5	6.65	2.36
7250	6.8	6.67	2.52
7500	7.0	6.65	2.68
7750	7.0	6.58	2.86
8000	7.2	6.54	3.04
8250	7.3	6.24	3.22
8500	7.2	5.98	3.40
8750	7.3	5.82	3.60
9000	7.4	5.91	3.84
9250	7.1	5.62	3.96
9500	6.8	5.04	4.24
9750	6.5	4.79	4.48
10000	6.3	4.48	4.72

LOSSES: 0.01%  
 TOTAL ENGINE: 7.4HP 6367W @ 7.4HP 5367W @ 7.4HP



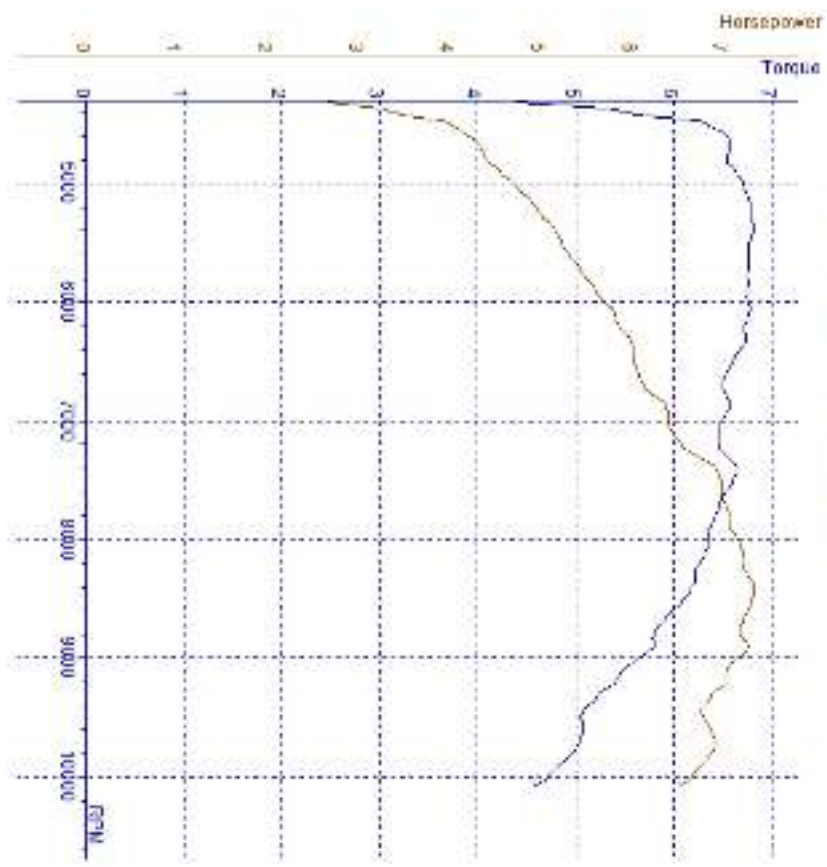
SPORTINO V13  
 DV NAANORITE W. 30172  
 RISE IN KINETIC 1.446

Displacement: 1000cc  
 Compression Ratio: 10.1:1  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1115 | MAX POWER: 73.7 HP @ 5135 | MAX TORQUE: 6.82 (6.82) @ 5404 | Temp.: 31.2 °C | Humidity: 78 % | Pressure: 1000.0 mbars | RPM: 73.7 | Date/Time: 28.12.2025 11:41:49

DATA FOR ENGINE GRAND STD FT 1115

Comments: ETHANOL/ICE = 10/90/10/0



RPM	HP (kW)	IN (N·M)	λ
4250	3.0	4.92	0.52
4500	4.0	6.33	0.64
4750	4.4	6.95	0.80
5000	4.7	6.72	0.98
5250	5.0	6.73	1.12
5500	5.2	6.82	1.22
5750	5.2	6.77	1.28
6000	5.5	6.76	1.46
6250	5.7	6.76	1.62
6500	6.0	6.74	1.80
6750	6.2	6.52	2.12
7000	6.4	6.48	2.30
7250	6.6	6.50	2.46
7500	7.0	6.60	2.64
7750	7.1	6.45	2.82
8000	7.2	6.35	3.00
8250	7.2	6.22	3.16
8500	7.3	6.21	3.26
8750	7.3	6.08	3.36
9000	7.2	5.80	3.56
9250	7.1	5.62	3.74
9500	7.0	5.32	3.96
9750	6.8	5.05	4.20
10000	6.9	4.99	4.44
10000	6.6	4.69	4.68

LOSSES: 0.01P 0.00%  
 TOTAL ENGINE: 7.3HP 6.82%  
 TOTAL ENGINE: 7.3HP 6.82%





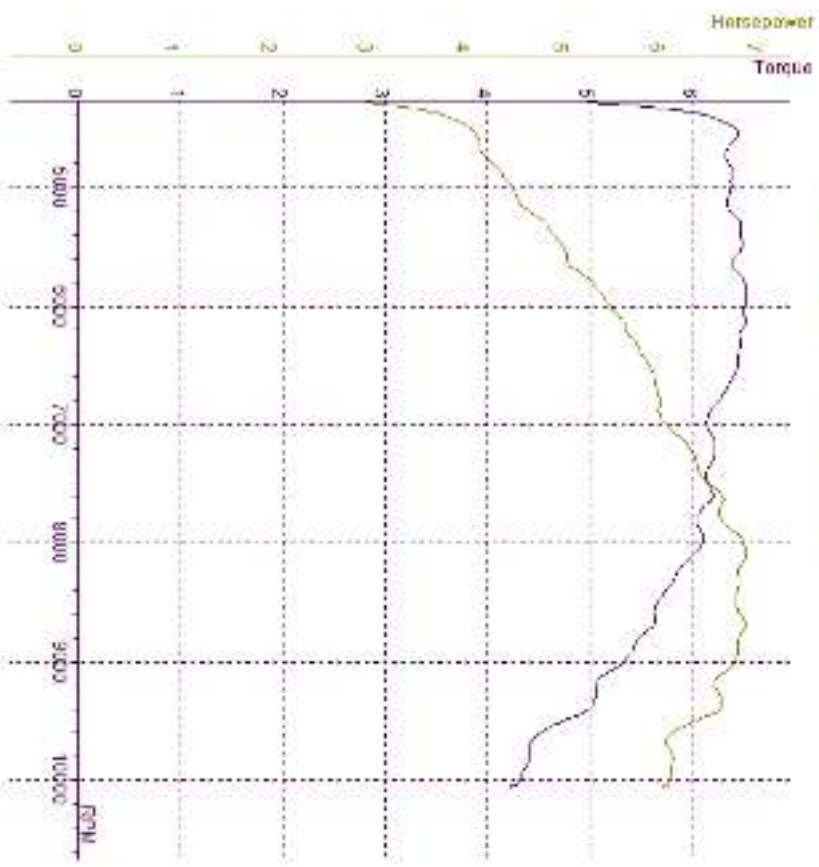
SPORTINO V13  
 DV NAVALMARTIN 301973  
 RUSSELL INKITAL 1446

Displacement (cc) :  
 Compression Ratio: 10.1:1  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1117 | MAX POWER: 6.32 (6.52) 5975 | Temp.: 31.2 °C | Humidity: 78 % | Pressure: 1000.0 mbars | MPH: 75.5 | Date/Time: 28/12/2020 11:42:08

DATA FOR ENGINE GRAND STD FT 1117

Comments  
 ETHANOL/ICE = 15/85ALC



RPM	HP (HP)	MPH (MPH)	g
4250	3.2	2.39	0.32
4500	4.1	3.08	0.38
4750	4.2	3.32	0.34
5000	4.5	3.37	1.02
5250	4.7	3.42	1.18
5500	5.0	3.48	1.28
5750	5.3	3.54	1.34
6000	5.5	3.62	1.58
6250	5.7	3.68	1.72
6500	5.9	3.74	1.98
6750	6.0	3.80	2.04
7000	6.1	3.85	2.22
7250	6.4	3.90	2.50
7500	6.5	3.95	2.76
7750	6.6	4.00	2.86
8000	6.9	4.08	3.14
8250	6.8	4.14	3.32
8500	6.8	4.20	3.54
8750	6.9	4.26	3.68
9000	6.8	4.32	3.72
9250	6.6	4.38	3.84
9500	6.3	4.44	4.20
9750	6.1	4.50	4.44
10000	6.1	4.56	4.56

LOSSES: 0.01P 0.00%  
 TOTAL ENGINE: 6.91P 6.22%  
 TOTAL ENGINE: 6.91P 6.22%



Dept. of Mechanical Engineering  
 At the National Institute of Technology, Tiruchirappalli,  
 Mysore Vengalpet, Tamil Nadu

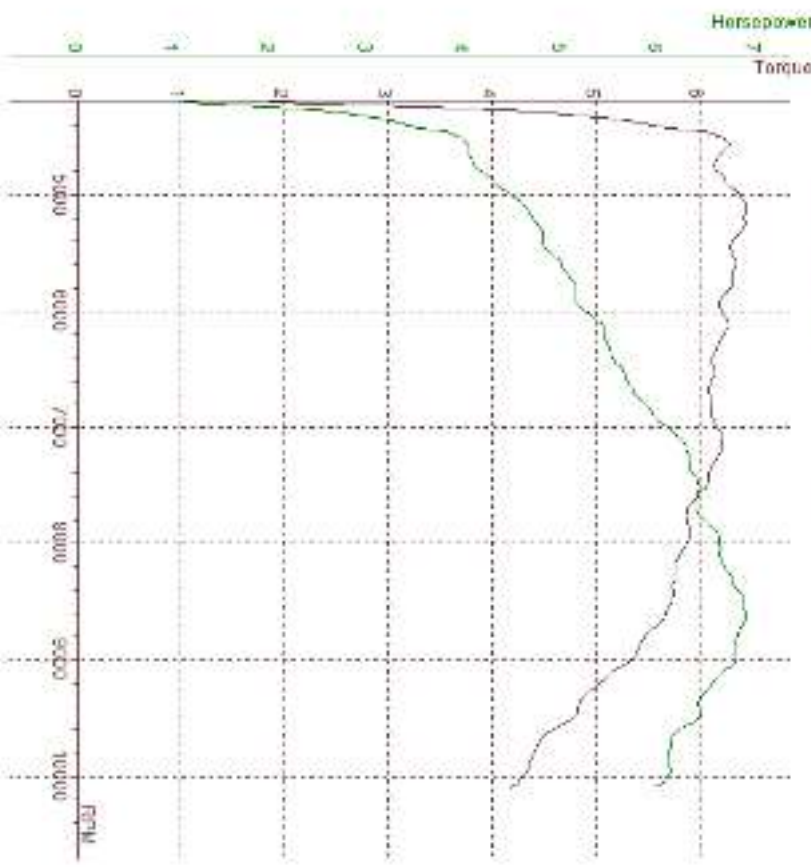
SPORTING V13  
 DV NAAMCHARTER 301973  
 RISE IN KINETIC 1446

Displacement (cc) : 1300  
 Compression Ratio : 10.1 : 1  
 NOTE: Load Cell Installed

TEST NAME: ENGINE GRAND STD FT 1119 | MAX POWER: 69.629 @ 5800 | MAX TORQUE: 6.45 @ 4500 @ 5000 | Temp.: 31.2 °C | Humidity: 78 % | Pressure: 1000.0 mbar | N/A | Date/Time: 28/12/2023 11:42:33

DATA FOR ENGINE GRAND STD FT 1119

Comments  
 FUELLINE: 100% + 15 DERAILAT



RPM	HP (kW)	(N.M/MIN)	η
4250	2.2	3.75	0.51
4500	4.0	6.25	0.75
4750	4.1	6.15	0.90
5000	4.5	6.00	1.06
5250	4.6	6.45	1.12
5500	4.8	6.44	1.24
5750	4.9	6.33	1.42
6000	5.1	6.23	1.60
6250	5.2	6.20	1.76
6500	5.5	6.19	1.96
6750	5.6	6.14	2.14
7000	5.8	6.11	2.32
7250	6.1	6.19	2.50
7500	6.3	6.16	2.68
7750	6.4	6.07	2.86
8000	6.4	5.87	3.06
8250	6.6	5.87	3.24
8500	6.7	5.77	3.44
8750	6.9	5.71	3.64
9000	6.9	5.67	3.72
9250	6.8	5.55	3.91
9500	6.8	5.54	4.04
9750	6.5	4.95	4.28
10000	6.4	4.75	4.52
10000	6.1	4.43	4.76
10000	6.1	4.28	5.04

LOSSES%: 0.01% @ 5800 RPM  
 TOTAL ENGINE: 6.91% @ 5800 RPM



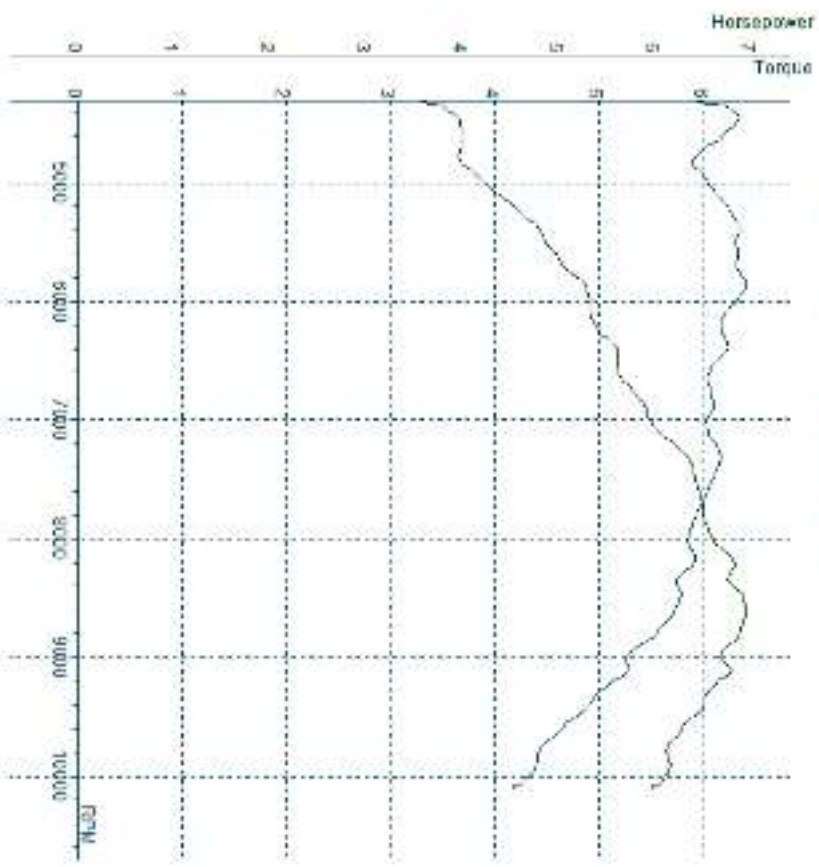
SPORTING V13  
 DYNA-PRO PERFORM  
 R1511ENK1AL 1.446

Displacement (cc) 1585  
 Compression Ratio 10.1:1  
 Model Year 1999

TEST NAME: HISEN GRAND STD FT 1120 | MAX POWER: 6.9 (6.9) 5642 | MAX TORQUE: 6.40 (6.40) 5535 | Temp. °C: 31.2 °C | Humidity %: 78 % | Pressure: 1000.0 mbar | MPH: 73.8 | SpeedTime: 28.12.2025 11:42.46

DATA FOR HISEN GRAND STD FT 1120

Comments  
 ETHANOL 100% + 15 DERRATE



RPM	HP (HP)	TQ (N.M)	λ
4250	3.7	6.09	0.52
4500	4.0	6.25	0.56
4750	4.0	6.30	0.61
5000	4.3	6.05	1.02
5250	4.6	6.25	1.20
5500	4.9	6.30	1.26
5750	5.1	6.35	1.51
6000	5.3	6.60	1.60
6250	5.3	6.51	1.72
6500	5.4	6.17	1.90
6750	5.6	6.12	2.08
7000	5.8	6.07	2.26
7250	5.9	6.03	2.44
7500	6.3	6.15	2.64
7500	6.6	6.07	2.82
7750	6.5	5.94	3.00
8000	6.6	5.82	3.20
8250	6.8	5.81	3.40
8500	6.9	5.77	3.58
8750	6.9	5.70	3.68
9000	6.7	5.25	3.78
9250	6.5	4.99	4.21
9500	6.4	4.74	4.46
9750	6.1	4.43	4.72
10000	6.1	4.39	4.98

LOSSES: 0.01E 0.00%  
 TOTAL ENGINE: 6.91E 5.40%  
 TOTAL ENGINE: 6.91E 5.40%  
 TOTAL ENGINE: 6.91E 5.40%