

DYNAMOMETER ENGINE TESTING SERVICES



sptronic USA

PERFORMANCE TEST REPORT

We certify that the engine specified below has been tested according to ISO 1585 standard, and had been successfully approved according to the manufacturer's specification.

Engine Identification:
 Customer: XXX
 Model/Manufacturer: C3 / CATERRILLAR S/N: 8A8E57
 Rated power (HP): 300
 Date: 02/05/2022
 Service Order: X

Dynamometer Identification:
 Model: FC1000 Capacity: 1000HP S/N: 0221-3

Performance Test Description:
 The engine is taken to the following operating regimes:
 - Rated power
 - High idle
 - Low idle

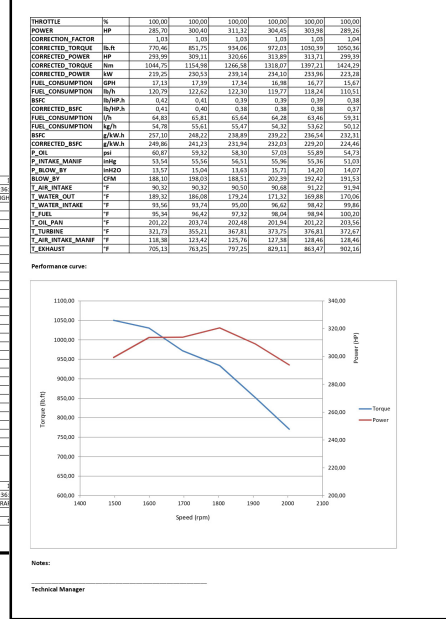
Performance curve measurement:
 The approval of the engine performance occurs when the measured values reach the ranges as specified by the manufacturer within a tolerance of +/- 30%.

Performance Test Date:

DATE	17/02/22	17/02/22	17/02/22	17/02/22	17/02/22
TIME	6:36:00 PM	6:36:02 PM	6:36:04 PM	6:36:06 PM	6:36:09 PM
STEP	8864.0% 1	8864.0% 2	8864.0% 3	8864.0% 4	POWER
RPED	rpm	1800	1800	1800	1800
TORQUE	lb-ft	276.95	355.62	359.62	392.71
THROTTLE	%	85.25	80.84	77.82	82.21
POWER	HP	321.61	302.96	325.37	354.61
CORRECTED_TORQUE	lb-ft	1.02	1.02	1.03	1.03
CORRECTED_POWER	HP	58.19	107.77	160.55	263.85
CORRECTED_TORQUE	lb-ft	43.78	79.65	119.73	176.73
FUEL_CONSUMPTION	gph	2.65	6.11	9.00	14.50
BSEC	h/hp-h	0.45	0.43	0.41	0.40
CORRECTED_BSEC	h/hp-h	0.44	0.42	0.40	0.39
FUEL_CONSUMPTION	l/h	11.86	23.14	34.05	54.89
BSEC	h/kwh	274.89	255.20	248.48	244.84
CORRECTED_BSEC	h/kwh	55.73	58.43	58.32	59.00
P_INTAKE_MANIF	inHg	32.01	35.54	37.42	47.80
P_BLOW_BY	inHg	0.06	0.06	0.01	0.00
BLOW_BY	CFM	73.29	83.06	109.63	170.89
P_WATER_OUT	F	176.82	175.78	197.60	196.88
P_WATER_INTAKE	F	92.80	96.46	95.76	96.36
P_FUEL	F	98.58	97.32	96.60	96.28
P_OIL_PAN	F	195.64	200.68	203.37	204.81
P_TURBINE	F	133.78	110.16	244.13	305.51
P_INTAKE_MANIF	F	112.54	109.39	116.46	115.50
T_EXHAUST	F	705.15	716.29	745.79	774.59

Performance Curve Data:

DATE	17/02/22	17/02/22	17/02/22	17/02/22	17/02/22
TIME	4:36:16 PM	4:36:18 PM	4:36:21 PM	4:36:23 PM	4:36:26 PM
STEP	8864.0% 1	8864.0% 2	8864.0% 3	8864.0% 4	8864.0% 5
RPED	rpm	2004	3066	3803	4086
TORQUE	lb-ft	748.75	637.95	908.85	943.00



With a dynamometer, your engine quality is proven and rework is minimized. This allows your customer to have confidence in your engines.

Our test bench is equipped with a high quality dynamometer and a modern computerized data acquisition and control system, which provides safety engine operation, and accurate measurement of several engine parameters. Our facility can test engines up to 1,000 hp.

A performance test procedure is applied according to the engine manufacturer specification, what includes steps for heat-up, initial break-in, and performance curve execution. During the test, troubles as leaks, loss of power, turbocharger or injection issues, can be easily identified, and corrected by the customer.

A Performance Test Report is generated, showing **horsepower, speed, torque, critical temperatures and pressures, fuel consumption, blow-by, ISO standard correction factors**, and a performance curve along the engine speed range.



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