

Column	Measurement	Description
A	Time	The time index of each measurement. Data was sampled at 20Hz.
B	Power, Electrical	The electrical power at the generator. Positive numbers indicate power is being generated. Negative numbers indicate the cylinder is being given a “push” by the motor.
C	Power, Mechanical	The estimated mechanical power at the generator ($\tau * \omega$). Positive numbers indicate power is being generated. Negative numbers indicate the cylinder is being given a “push” by the motor.
D	Position	Position of the cylinder, indicated as number of rotations of the generator from center.
E	Velocity	Velocity of the generator, in rotations per minute. This was measured at the quadrature encoder
F	Velocity	Velocity of the generator, in rotations per minute. This was measured by the variable frequency drive
G	Torque	The torque being applied to the system by the generator.
I	Torque, Damping	The damping torque requested by the system. This is the standard power extraction torque.
J	Torque, C1 + C2	The requested corrective torque requested by the system. The corrective torque is to correct for the conditions encountered due to the unlevel river bottom. See DataAnalysis.pdf for further explanation.
K	Torque	The torque requested by the control for the VFD to apply.

File name explanation

XXXX_Y_ZTSZZ_DMPAAANSpM_C1isBBBC2

XXXX	Test run number
Y	Which cylinder was run in the test
ZZZ	If the cylinder slows too much, it needs to be given a push. The speed that was used, in RPM
AAA	The damping ratio, in Newton-Seconds per Meter
BBB	The correction factor used for the unlevel ground. See DataAnalysis.pdf