PRODUCT BULLETIN
NUMBER: CATWALK 002

PRODUCT: AUTOMATED CATWALKS **DATE:** January 14, 2008

SUBJECT: **PipeMatic/ PowerCAT MCC to Catwalk Cable Requirements**

MODELS: **PM3000, 3000, PM4000, PM4100, and 4100**

DISCUSSION:

We have experienced inadvertent HPU Feeder Circuit Breaker trips and in rare cases, damage to the Motor Starter. One reason for these trips is a voltage drop across the power cable from the Powerhouse to the PowerCAT. The voltage drop is most noticeable at start-up of the HPU. While the HPU pump is accelerating to normal run speed, the "in-rush" current is approximately 10 times the normal run current. This high current will cause the voltage on the starter (located at the PowerCAT) to dip. Sometimes, the voltage dip will be sufficient to drop the magnetic starter coil, thus removing the power to the pump motor. As soon as the power is removed, the voltage dip will go away and the starter coil will pull in again. This action is known as "chatter" and can prolong the start-up of the motor and can cause the feeder breaker to trip or the starter to burn or weld one or several contacts.

RECOMMENDATION:

It is recommended to review the cable size and all connections between the MCC (in the Powerhouse) and the PowerCAT junction box, including plugs and receptacles. All rigs with cable runs longer than 150 feet should utilize size 1/0 cable from the MCC to the Catwalk in order to reduce voltage drop. Cable length less that 150 ft should be #2AWG wire size. This is especially critical in hotter climates. It is also recommended to confirm the generator output voltage to be 600Vac (or 460Vac if that is the nominal power). Any fluctuation in voltage may contribute to 'chattering' and welding the contacts.

Further, if you have experienced circuit breaker trips or if you perform a new installation, Canrig recommends using a 150 Amp, Feeder Circuit breaker, c/w thermal and magnetic trip, equivalent to Cutler Hammer series G® JG-frame, for 460Vac systems. If the nominal supply voltage is 600Vac, a 100 Amp circuit breaker of same characteristics should be used.
If you currently use a 100 Amp circuit breaker and do not experience any trips, it could be that the characteristic of the installed breaker is slightly different than the one referenced above.

INFORMATION: *For a complete list of all bulletins go to* ***www.canrig.com***

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