

MOTOR-GENERATOR INTERLOCK CIRCUIT

Motor-generator sets are frequently used for auxiliary power sources on-board draglines and other large equipment. Figure 1 is an idea that creates a failsafe mechanical/electrical interlock that can prevent an auxiliary power source such as a motor-generator set and the main power source from being connected to the same circuit at the same time.

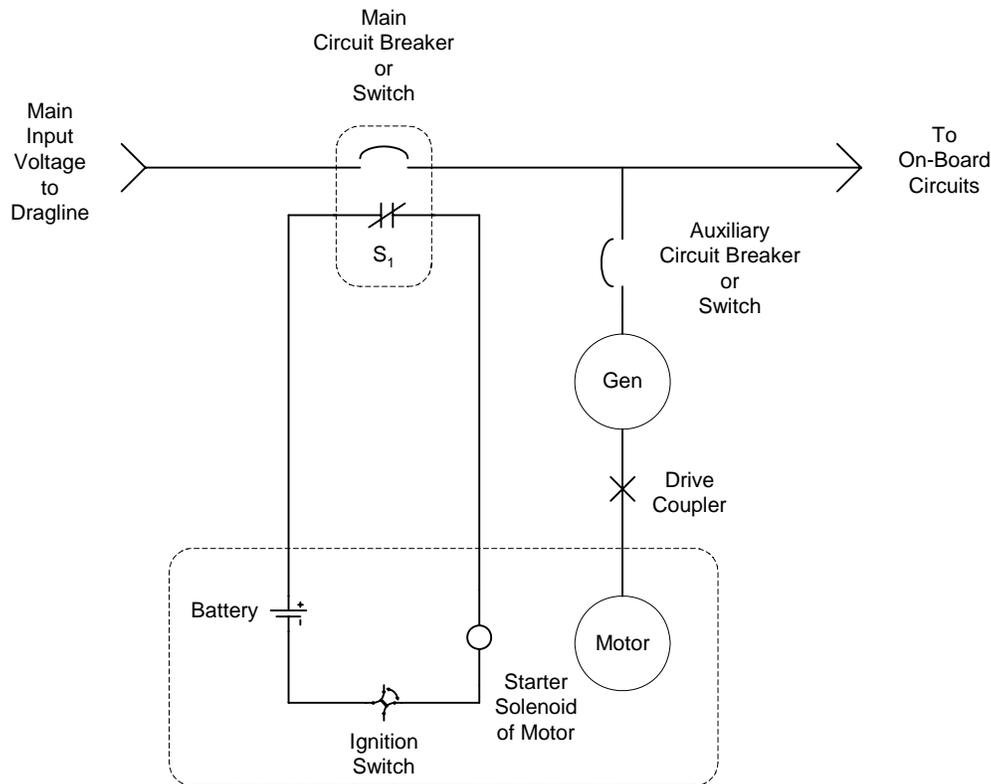


Figure 1

Contacts S_1 are mounted in the ignition circuit of the diesel engine and are mechanically actuated only by the linkage of the main input circuit breaker or switch as it is opened. When the main switch opens, the linkage closes the S_1 contacts, and only then can the diesel engine be started and the auxiliary circuit breaker closed. When so installed, a motor-generator set cannot be started and energized unless the machine main circuit breaker or switch is in the open position. Thus a positive action (i.e. opening the main input switch) is established that must be taken before the auxiliary power source can be energized.