

柴油机低温起动瞬态参数采集处理系统

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摘要: 开发了一种便携式柴油机低温起动瞬态参数的采集系统。该系统运用总线数据采集卡结构, 包含电压、电流、转速等传感器和F/V转换器等, 可以多通道实时采集蓄电池起动电压、起动电动机电流、电解液温度和发动机转速等信号, 并进行实时存储、处理与显示。通过DASYLab可以编写接口、标定程序, 使用方便。试验结果表明, 该系统性能可靠、精度高、抗干扰能力强, 能够很好地满足柴油机低温起动性能瞬态参数的采集要求。 A sort of portable acquisition system about the dynamic parameter of the cool-starting diesel engine was developed. The data acquisition card was used by the system, which contained with start voltage sensor, start electric current sensor, rotate speed sensor and F/V. The real-time collection could be carried out to start voltage of the storage battery, start electric current of the electromotor, temperature of the electrolyte and rotate speed of the diesel engine by multi-channel, and the signals could also be storied, transacted and displayed at the same time. The system could conveniently compile interface and demarcate program by DASYLab. The test results show that the system is reliable, accurate and has good anti-jamming ability. It can meet the needs of the dynamic data acquisition for the cool-starting diesel engine greatly.

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