

DEARMAN RELIES ON INFLUX TECHNOLOGY FOR ENGINE DATA COLLECTION

Rebel CT Compact Data Logger Captures Vehicle Parameters

Dearman is an innovative technology company developing zero-emission power and cooling solutions. At the heart of Dearman's technology portfolio is an innovative piston engine powered by the rapid expansion of liquid nitrogen – the **Dearman Engine**. The Dearman Engine is the first engine to deliver efficient power and cooling from the expansion of a cryogen. Its first application is a zero-emission transport refrigeration system. Performance and durability in application testing is a vital part of its development, so it's crucial for the company to see all relevant data and to be able to select specific channels for reporting and performance iteration comparisons. With this in mind Dearman turned to **Influx Technology** for a vehicle data collection solution. As a North American distributor of Influx, **CAS DataLoggers** presents this Case Study showing the business benefits.



Vehicle Data Logger:



Since May 2015, Influx's **Rebel CT Vehicle Data Logger** has enabled the Dearman team to remotely monitor the Dearman engine's health parameters –e.g. pressure and temperature. Due to the compact size and robustness of the Rebel data loggers, they are uniquely suited for problem investigations in the field. The Rebel data logger can be confidently and discretely fitted to customer vehicles to investigate.

Offering a complete solution for vehicle network and sensor data, the Rebel CT records vehicle data such as temperature, speed and pressure. Setup is easy with no need to write complex scripts so users can start monitoring in minutes. For CAN bus data logger applications, the Rebel data loggers can be used to collect raw CAN messages in a 'Listen Only' mode. Additionally, most of the OBD data users require can be acquired without the need for other instrumentation.

The logger features three CAN bus inputs, a K-Line input, four digital I/O channels, and four analog input channels. This allows robust and reliable collection of data from several sources, without any user interaction, for extended periods. The Rebel CT is also equipped for Ethernet (LAN) communication and supports SDHC card data storage, with the SD card securely housed behind a flap panel. It is packaged in a robust IP68 enclosure and can be expanded to include

GPS, accelerometer, WiFi, and 3G. Users can also opt for a 1 kHz internal XYZ accelerometer (+/-16G max), a K-Box, and a dash display.

OEM Engineering Data Acquisition:

The Rebel family of data loggers is also ideal for OEM vehicle and powertrain calibration engineering. The high-speed sampling rates acquire internal ECU parameters. Advanced protocols support CCP/xCP and UDS fast data acquisition making the Rebel an ideal tool to support engineering projects.

Business Benefits:

The Influx Rebel CT continues to be an important part of Dearman's remote monitoring process. Its WiFi and GPRS connectivity enable both the pioneering operator and the Dearman team to gauge the health and performance of the system remotely. Dearman's CTO comments:

"The Influx Rebel CT continues to be an important part of our refrigerated transport application development program. Dearman is bringing zero-emission power and cooling technology to market in a compressed time frame, and the Influx Rebel CT has supported our intensive application performance and durability testing program with outstanding reliability." *—Nick Owen, Chief Technology Officer, Dearman*

For more info on the [Rebel CT Datalogger](#), more [Influx Technology products](#), or to find the ideal solution for your application-specific needs, contact a **CAS Data Logger Applications Specialist** at **(800) 956-4437** or visit our website at www.DataLoggerInc.com.