

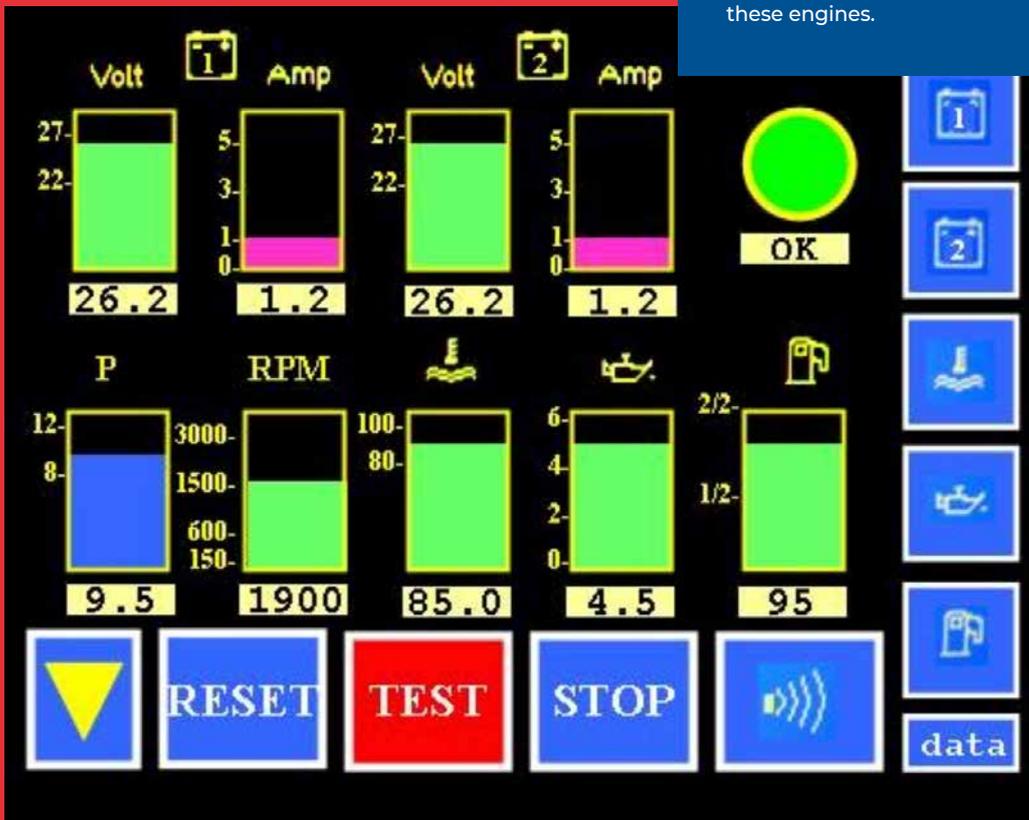


WB Firepacks

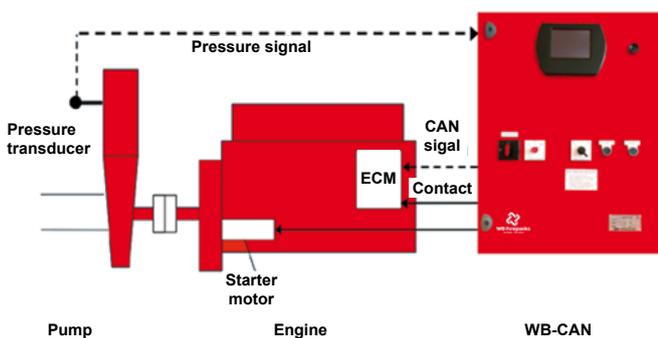
Our Power | Your Safety

WB-CAN

With the expectation that the market share of electronically controlled diesel engines will steadily increase WB Firepacks has developed the WB-CAN controller. In this way WB Firepacks has the in-house solution for controlling these engines.



Principle WB-CAN



Besides providing the same basic functionality as a standard controller the WB-CAN controller is capable of controlling engine speed based on pump pressure or other parameters. The WB-CAN controller complies with the sprinkler pump requirements of NFPA-20, EN 12845 etcetera.

With electronically controlled engines this is done with the Controlled Area Network or CAN protocol. CAN is a automotive industry standard to enable communication between different control units, for example an engine and an automatic gearbox. The CAN protocol is standardised worldwide (J1939) and can, besides controlling, also be used to read fault codes, enabling WB-CAN to diagnose electronically controlled engines as well.

The WB-CAN activates both the key contact as well as the starter relays. When a start command is generated, by means of pressostat or pressure transducer, the engine is started and engine speed is controlled through the CAN signal. The WB-CAN is also provided with a manual contact and backup throttle, so the Firepack can operate without the WB-CAN in case of emergency.

Application of the WB-CAN controller provides the following possibilities:

Gradual increase / decrease of engine speed and “cool down” of the diesel engine.

With conventional controls the diesel engine is directly accelerated to nominal speed after engine start and is stopped immediately after stop. It is clear that this has a negative influence of the service life of the engine and especially the turbocharger. An other issue is the possibility of pressure spikes in the system.

With the WB-CAN controller the engine is gradually brought to operating speed within 15 seconds. After the stop signal the engine speed is gradually decreased to idle speed first, after which the engine idles for minimal 30 seconds before being stopped. This enables the turbocharger to lose its heat and speed.

Simplification and protection during the weekly test.

Normally a Firepack runs 99% of its running hours during weekly testing. Fire protection regulations don't allow engine protection for obvious reasons. The effect, however, is that on average one engine per month is lost.

The WB-CAN controller enables engine protection during the weekly test. By activating the test mode the engine is brought on

operating temperature first, which reduces engine wear to the minimum. By guiding the operator through the weekly test by means of step by step instructions the possibility of errors is minimized.

Speed / Pressure control

When a pump is operated at a fixed speed the pump pressure will rise considerably above the nominal value when the demanded capacity is low. In certain cases this can lead to exceeding the pressure rating of the (existing) pipe work.

With the WB-CAN controller it is optionally possible to limit pump pressure at a preset value by regulating engine speed. The system is fail safe executed. More information on the Speed / Pressure control itself can be found in the brochure “Speed / Pressure Control”

Data storage

The WB-CAN has a “logbook” which stores start commands, alarms etcetera. Besides that it is possible to record system pressure as well, eliminating the need for a separate pressure recorder.

Alarm indication by GSM

Besides indication of alarms and faults on the touchscreen and the standard signalling to the fire alarm system the WB-CAN can also provide a fault indication by GSM. By exactly specifying the fault, solving the problem can be prepared in advance.

Future applications

The electronic components of the WB-CAN are developed in a way that Internet applications can be implemented if the need for those exists. Internet application will give possibilities as on-line access, fault management and supervision of the Firepack.



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