### innovations Cta

# **Overhead power** line detector

UK electronics manufacturer Transport Support has launched a high voltage detection system - HVDS - which is suitable for most types of vehicles. The HVDA uses a cab-mounted detection antenna and an in-cab audio/visual warning unit to alert operators of the presence of any overhead power lines. The antenna is more durable and receptive than previous models and can be programmed to detect power lines up to 100 metres away. If a line is detected a high pitched warning tone is sounded and a red LED light will flash.

An external all weather detection system is also available for mounting on

the exterior of a vehicle. Fully waterproofed to IP68 it weighs 15.5kg and can operate in temperatures of minus five to 55 degrees centigrade. Both systems have a mute function.



TS' in-cab audio/visual warning unit.

#### **Comatra's telehandler** pressure system

Comatra's TMPS tyre pressure monitoring system has been designed for radial tyres fitted to telehandlers. It addresses telehandler manufacturer's claims that even five percent under-inflation can reduce lifting capacity/stability by 30 percent.

The real time wireless tyre pressure monitoring system fits the universal ETRTO V5.01.1 - TR618A rim hole and is mounted behind the tyre rim where it is safe from dirt and other



corrosive or hazardous materials which valve cap-end mounted sensors are often subject to. Measuring pressures between 0.4 bar and seven bar, an audio/visual alarm will sound from the in-cab display if the pressure changes by more than 10 percent or if the temperature exceeds 80 degrees centigrade. Powered by the vehicle's 12-24V power socket, cold operating pressure can be programmed as well as different pressures for each axle.

Comatra's TMPS system designed for radial tyres used by telehandlers





#### Unmanned aerial inspection

Vertex Access has developed a series of unmanned aerial vehicles (UAV) or drones, which can be used to carry out aerial inspections. The remote controlled drone is able to manoeuvre close to buildings and into awkward or dangerous positions, while various camera attachments provide high definition images or video without the need for using an aerial work platform.

The drone itself has eight propellers and an on-board flight controller with GPS and accelerometer technology to ensure a steady, horizontal flight position. Powered by electric motors which run off lithium polymer batteries, an average flight can last approximately 15 to 20 minutes.

Interchangeable cameras and attachments can be used, for example a customized Sony NEX 7 with a 24 megapixel APS-C CMOS sensor can shoot high-definition video, while a 16 megapixel Lumix DMC-TZ61 fitted with a FLIR Tau 2 640 infrared sensor can take simultaneous infrared and true colour images which can also be geo-referenced. It also has software to generate photos taken from the air looking directly down, into a 3D model, which can be used for land surveys or volumetric analysis.

Sam Johnson of Vertex, said: "Utilising UAV technology for inspection and surveying sits incredibly well with the HSE hierarchy of working at height, which states that if at all possible, avoid work at height. Our system allows the operator to be situated safely on the ground and inspect structures that would have no safe or efficient access."



## Tyre pressure monitoring

Continental CST has launched the ContiPressureCheck system which has been designed to monitor the pressure of speciality tyres. The tyre pressure monitoring system can be retro-fitted to almost any industrial vehicle and is suitable for pneumatic tyres from all manufacturers. Sensors mounted to the inside of the tyre continuously and automatically monitor the inflation pressure and

temperature and a communication/processing system wirelessly relays the information to an in-cab monitor.

By fitting the device to the inside of the tyre it not only protects the system, but also eliminates inaccurate readings which can occur with externally mounted devices, through heat from the brakes. The difference between the stipulated and actual tyre pressures shows the operator when to restore the correct tyre pressure.



Continental's new ContiPressureCheck tyre pressure monitoring system.

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