



CESAR's registration scheme uses Datatag identification technology to act as a deterrent against theft and to make it easy for police agencies to identify stolen equipment.

entirely mechanical system, we can bolt on an electronic locking system which can be integrated to a host of other electronic systems on the vehicle."

The support of the OEMs is obviously important when it comes to fitting theft prevention measures in the factory. The ERA's theft working group, for example, is lobbying manufacturers to adopt a standard machine interface connector for anti-theft systems. The working group acknowledges that some manufacturers already provide such connections, but hopes that a "generalised" solution can be agreed.

If there is continued debate about the best way to prevent theft, then there are also increasing numbers of companies offering sophisticated asset tracking system that can help rental companies track their equipment for fleet management purposes, and at the same time alert them to when equipment goes missing.

For example, Danish company M-tec A/S reports

that its TrackUnit FMS system is now fitted to more than 35000 units in Northern Europe, the US and the Middle East. One of its customers is Riwal Denmark, who has been using the system for around five years and has now fitted it to around 30% of its 2200 unit fleet in Denmark.

The prime use for the system is for fleet management - seeing where equipment is and when it is being used - with theft prevention a secondary but important element.

Søren Rosenkrands, general manager of Riwal Denmark, says the cost of installing and running the devices would not be justified by anti-theft benefits alone. He says the costs of the system are covered by reduced insurance premiums and at the same time more effective and accurate billing, for example for machines used on Sunday and during holidays.

While theft may be secondary, the M-tec system has been useful in this area. Riwal Denmark experiences around 5 to 6 thefts a year, and one machine was

recently recovered on its way to Poland because the tracking system revealed its location.

Another Scandinavian tracking specialist is ABAX of Norway, whose mtrack system is widely sold around the world. Richard Taylor, managing director of Automatrix, the UK dealer for mtrack, tells *IRN* that it recently upgraded its theft recovery tracking device from the original dual band modem GSM/RF location device to a quad band GSM/RF location device with additional GPS.

"The additional GPS is helpful if signals are available (that is, they are not being blocked by jamming devices or not available if assets are stored away from satellite view). The primary mtrack location technology of GSM cell site triangulation combined with a radio beacon is retained from the outgoing model to ensure maximum tracking capability regardless of environment."

Mr Taylor adds that the new specification also comes with both GPRS and SMS roaming-enabled SIM cards; "which means we can update the system software over the mobile network remotely and units will work in virtually all countries".

Meanwhile, UK company Masternaut - which recently merged with its UK competitor Cybit (see box story on the previous page) - offers the Asset Track system, which is a covert tracking device that transmits the precise location of the asset.

Realtime visibility

The system gives equipment owners real-time visibility of their equipment on the internet or via smart phones, and a geofence facility will alert the owner if a machine goes outside a specified boundary.

"For plant hire companies, the system provides a record of usage for Pay-As-You-Use services", says Masternaut, "Customers are given accurate invoices, backed up by the system's monitoring capability. In addition, because the 'hirer' is responsible for assets on loan to them they now also have peace of mind from knowing that the equipment is fitted with a real-time tracking device and in the event of it being stolen it can be traced and retrieved."

One company using the system is Flannery Hire based in Yorkshire, UK, which has fitted tracking devices to high-value equipment such as excavators and telehandlers.

"The Masternaut Asset Track system provides round the clock security for us and for our clients. They are recognising the value that the system provides them and are requesting equipment that has Asset Track installed. It gives them peace of mind, knowing that we geofence and automatically monitor the equipment on site," says Pat Flannery, director, Flannery Hire.

"The system has been tailored to suit our needs. It is intuitive, allowing us to assign geofences to suit any site and it provides a live view of our tracked equipment wherever it is deployed", says Mr Flannery. **IRN**

RFID smooths the pipeline

AssetPulse, the Californian RFID company, has installed an RFID system to allow an oil and gas service company to improve the management of its fleet of 2000 drill pipes at its yard in Houma, Illinois.

Ritesh Rajani, project leader at AssetPulse, tells *IRN* that the RFID system replaces an engraved coding system that required manual reading - a lengthy process when you consider that a typical job might require 100 to 300 pipes.

"They need information for billing - what pipe was out and for how long", says Mr Rajani, "The first thing they want to do when it returns is to reconcile what has come back. For them to check manually it would take a few days."

And there is a similar time saving when preparing equipment for a customer; "It used to take a week to execute a job with 250 pipes. Now that takes 6 hours", he says.

In addition to the billing accuracy, the RFID tags allow the company to keep track of the annual pressure testing records for each pipe - a key requirement in the demanding oil and gas sector. This also means that the system will not send out a pipe that is due for its test during the period of the rental contract.

Mr Rajani says that visual inspections are also much easier now, with bulk scanning of pipes possible without the laborious task of identifying and noting the number of each pipe. "Even if you force staff to do things manually, people will not always follow the full process. RFID scanning eliminates omissions and errors and makes it much easier for staff to follow the correct procedures."

A final benefit is the ability to properly track utilisation of each individual pipe. This allows the company to allocate under-used assets for projects - sharing out the workload for each pipe - and also identify for disposal types of pipe (sizes, lengths) that are under-used.



The company is using just two handheld units - Motorola MC9090-G RFID handheld readers - and the tags, which have proven very robust, are attached to the pipe using a circular steel bracket (see illustration).

Close up of the bracket that connects the RFID tag to the pipe, and, above, a demonstration of how robust the attachment is.

