

A Draft Report by the



**THE ERA REQUESTS
OEM MANUFACTURERS TO
UNDERTAKE AN ENGINEERING
REVIEW OF THE MACHINE
IDENTIFICATION VIN-ID
PRODUCTS THEY PROVIDE.**

CONSTRUCTION PLANT THEFT IN THE EU.

INTRODUCTION:

Plant Theft is Robbing Hire Companies & Contractors.

A REVIEW OF UK INITIATIVES BY UK OEM MANUFACTURERS & INSURANCE COMPANY STAKEHOLDERS - ARE THEY SUITABLE FOR THE ERA MEMBERSHIP?

- **The European construction industry** suffers the theft of approximately €4.5 billion worth of construction equipment a year, with networks of organised criminals behind the majority of crime. Plant theft is Robbing Hire & Contractor Companies of their hard earned money.
- **Hire & Contractor Company businesses** are also funding additional losses which include downtime, cross-hire and disruption to business, administration replacing stolen machines, insurance excess and increased premiums etc.
- **The ERA Anti-Theft Committee** is committed to being a positive force for change. A research project will commence in 2012 to establish the extent of the problem in the EU.
- **CESAR SCHEME:** The CEA-OEM Construction Equipment Manufacturers Association owns the CESAR Trade Mark and the CESAR Registration Scheme, their franchisee is Datatag. *“The primary purpose of the scheme is to allow police a 24 hour ability to check the provenance of Cesar registered equipment”* (Extract in italics is from the 12th Quarterly Paniu Report – p.12)..
- Every volume machine OEM Manufacturers in the UK now provides CESAR database registration as original equipment and a Cesar Sticker on the machines purchased. OEMs pay the CESAR franchisee £45-50 for the Kit, this increases the price of the machine from the OEM to Dealers by £85 and the Hire Companies who buy 85% of machines in the UK are paying an additional £120 (€140) to the Dealers for each CESAR registered machine they purchase. This cost is NOT optional.
- **Paniu-the UK Police Plant & Agri National Intelligence Unit (funded by Insurance Companies) is a specialist police unit of 4-5 officers** with responsibilities for serious crime including plant theft. Paniu has published statistics provided by insurers and police. These findings may ultimately mirror the extent of the problem in other EU countries for example:

- *Plant theft is serious organised crime. Plant is easy to steal and is a low-risk high-reward crime. Machines are stolen by organised criminal networks for export around the World to make vast sums of money.*
- *Newer machines are now being targeted and stolen to order for money or export. The methods used to steal have become more elaborate. The stolen machinery is moved in highly planned operations and is transported hundreds of miles within hours of the theft. The gangs use the funds to fund drug trafficking and money laundering operations.*

(The text in Italics above is edited from page two of - google: 11th Quarterly April-June 2011 Paniu Report.)

Paniu 11th Quarterly Report Oct 2008 – June 2011

The current Paniu stolen equipment database commenced in October '08 and now comprises 16,500 stolen items of equipment (page two).

*For the same period **Paniu has directly assisted police recover** £6.9 million worth of stolen machinery. To date 270 items of property have been recovered with an average value of £25,000. (page 10).*

These published Paniu statistics extrapolate as follows:

Police directly assisted the recovery of 1.6% of the plant reported stolen to the police.

Plant valued at £412 million (four hundred and twelve million GBP) was reported stolen to Paniu being 16,500 machines x average value of £25,000 each.

Of these 16,500 stolen – Police assisted the recovery of 270 machines being 1.6%.

PANIU reported a total of 8% of machines stolen were recovered.

Tracker after-theft recovery system companies recovered 6.4% of plant stolen.

HOW TO UNDERSTAND & EXTRAPOLATE CESAR & PANIU STATISTICS:

CESAR is a database registration scheme and does not recover plant. However machines which have a Tracking System installed and simultaneously are Cesar registered and are stolen and recovered by the Tracking Company will be listed as 'Recovered by Cesar'. The identity or contribution of the Tracking Company is never discussed.

Machines with Tracking Systems may be reported to the Police when stolen. The Tracking company may independently recover and return the machine to its owner without any further police intervention – this statistic will be credited to a recovery by PANIU or/and CESAR.

Machines with Tracking Systems which are registered to CESAR do not require CESAR'S assistance with the provenance of the machine they are recovering - they know who owns the machine.

There was one exception to this which is quoted in the above example from the 11th Quarterly Report.

LIES DAMNED LIES AND STATISTICS – MARK TWAIN.

Summary:

The CESAR-PANIU Scheme commenced in January 2007 and is now 5 years old
– What has it achieved?

PANIU & UK Police forces have recovered 1.6% of the plant reported stolen.

Trackers recovered 7.4%

The Total number of UK machines stolen and subsequently recovered is 8%.

92% of machines reported stolen were NOT RECOVERED.

This is a failure rate and is not acceptable.

These losses are being funded by Contractors & Hire Companies.

Nil-Zero electromechanically immobilised secured plant was stolen in the UK in 2011.

The Insurance Anomaly – A Stakeholder.

Leading UK Insurance companies fund PANIU.

PANIU - The Plant & Agri National Intelligence Unit is funded by nine leading Insurance Companies who pay c. £40,000 each per annum to the specialist police unit which consists of 4-5 officers to recover stolen plant.

[The CEA OEM Manufacturers CESAR Scheme also pays PANIU c. £1 per machine registered].

Note: On average insurance companies settle claims for stolen plant within seven weeks of the theft. Therefore machines stolen and recovered after seven weeks (e.g. all plant recovered outside of the UK) are returned to and are the property of its new owner the insurer.

- ERA Hire Company Members or their Contractor customers will have paid insurance excess and will have an increased insurance premium and are also funding additional losses which include downtime, cross-hire, disruption to business, administration replacing stolen machines.

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Operation Crassus – Paniu Quarterly Report Oct-Dec 2010.

(Google page 12 the exact and full text is published below in italics)

“During a two week period in early November 2010, at least 21 forces took part in Operation Crassus, focussing on stolen plant and equipment.

The operation also involved the Vehicle and Operator Servicers Agency (VOSA), Her Majesty’s Revenue & Customs (HMR&C) and the Environment Agency.

Nearly 2,150 vehicles were checked and 30% were found to be committing offences, whether they were maintenance, driver’s hours or carrying stolen plant.

Nearly £415,000 worth of plant was recovered from telehandlers to JCBs, tractors and generators all over the UK. There were 47 arrests half of which were for crime either handling stolen property or theft”.

Analysis of UK Police Operations:

Does the ERA Membership want to be part of a machine registration scheme whose database could facilitate at some future time the imposition of a new government tax on their off road equipment fleet.

21 Police Forces recovered 17 pieces of plant (average value £25k) over a two week period. This is the equivalent of 430 machines being recovered if the special operation continued non-stop for 52 weeks a year – with 5,600 machines being stolen per annum this would yield a maximum police recovery rate of 7.6%.

Operation Crassus did not take place in 2011.

- Police services are not the panacea for every problem and may be under resourced when working against organised crime specifically if that problem is a minority problem statistically for the Government in that territory.

e.g. plant theft is only 1-2% of total vehicle crime in London (Paniu 2009/10 report 7.)

- The UK CEA OEM Manufacturers & Insurance Stakeholders led CESAR-PANIU Initiative is totally focused and dependent on police financial budgets, performance and recovery with the assistance of CESAR provenance. The statistics confirm that after five years this initiative has gone as far as it can. For example the theft of Agricultural Tractors part of the CESAR PANIU remit has increased by 17% in 2011.
- Effective immobilisation to stop the theft of the machines in the first instant and the seizure and forfeiture by Police & State of the assets of criminals will have a more dramatic effect and will provide our industry and ERA Members with statistics which can be compared with the passenger industry.

Passenger Car Theft in the EU:

- Since the introduction of EU Security Directive 95/56 in January 1998 (UK October 1998) mandating fit for purpose factory fitted immobilisation systems on passenger cars before they could be registered for sale in the EU, car theft has dropped by c. 66%.
- Professional thieves are difficult to deter. For example they steal cars which have registration plates and a provenance which is available to police instantly. VIN numbers are overtly integrated with windscreen glass and are instantly readable by police during random road checks to confirm the car has not being ringed and they have immobilisation and tracking systems installed. But they still steal them. It is naïve to consider that international plant thieves will somehow be intimidated by an off-the-shelf triangle sticker such as the one provided by the CESAR scheme. Perhaps Plant OEMs will consider machine identification integrated with windscreen glass on plant would be a vastly superior product to a sticker-label.

- **Hire & Contractor companies need proven, fit for purpose immobilisation technology to beat plant thieves in the hostile plant, agri and construction equipment environment. This technology already exists in the marketplace. With commitment mainland Europe EU Countries can reduce plant theft by 70% within three years. EU industry needs new initiatives which are focused on stopping plant being stolen in the first instant and should not endorse the route taken in the UK which ultimately is 100% dependent on the recovery of stolen plant by the police.**

ENGINEERING DESIGN REVIEW BY OEMS OF THE MACHINE

IDENTIFICATION VIN-ID PRODUCTS THEY USE

- The ERA Anti Theft Committee wants to be a positive force in these matters.
- As previously discussed effective immobilisation supported by tracking after theft recovery systems will statistically provide the best possibility of achieving targets.
- It is recognised that Police do not have the resources to recover large volumes of stolen plant and that their limited resources would be better used seizing the criminal assets of plant thieves.
- The recommendations within are an invitation to manufacturers to review and enhance, as appropriate, the products they already provide to their customers to assist them to identify and verify their customers ownership of machines purchased from them.
- ERA proposes that a good fundamental first step for OEMs would be to schedule an engineering review with the objective of upgrading their VIN & ID products at no additional cost to their customers.
- The proposed review could be influenced by what has been achieved by passenger car manufacturers and enhance identification of equipment in the field, at auction or if recovered after-theft, at no additional cost to the ERA Membership.

The Solutions Proposed in this document will result in:

- Random verification of the true identity of any machine in the field without using any special apparatus.
- At no cost to hire companies.
- Will circumvent any further requirement for additional OEM or aftermarket retrofit registration, marking or identification products to be fitted to the machine.

Concluding Summary

- An engineering review by OEMs of all chassis and other I.D. number registration systems as proposed within this document could be an excellent fundamental first step in providing ERA Members with validation of their ownership of their assets.



PROPOSALS FOR VIN ENGINEERING DESIGN REVIEW

Proposed OEM product improvement engineering tasks:

Review of ISO 10261.

Plant ID. Serial numbers need to be increased in size and could be stamped in a style *similar* to FE Schrift or in a *new* style invented for plant.

The style specification must be capable of resisting modification and cloning by thieves.

The engineering technique for stamping numbers could be reviewed.

Review of Chassis I.D. Plate:

Article 16 of EU Directive 2006/42/EC requires manufacturers to fit a PIN/VIN plate the improved products need to be compliant with the Directive.

Review the location of I.D. serial numbers.

The machine identification provided needs to be both overt and covert.

Perhaps the overt serial numbers will be visible, easy to use for the person wishing to identify the machine but inaccessible for the thief.

For example the thief should be obliged to dismantle/strip down the machine before he can get access to and tamper with the new overt OEM I.D. product which for example could be located in the engine bay and be readable, but not accessible, by looking into the engine compartment.

Every serial I.D. number marking will be finished with a YELLOW LUMINESCENT PAINT, to be specified, which is immediately readable in darkness without any artificial lighting.

Glass Window Marking Opportunities:

The majority of low to medium priced machines have glass. This offers superb marking opportunities perhaps a review of the benefits of adopting the glass marking procedures used by the passenger car industry would be beneficial.

For example:

- If the thief is obliged to remove and replace the windscreen glass or remove and replace the dashboard to change the machines identity – then this is a deterrent because it is a specialist task, is time consuming. If the thief is obliged to buy and provide replacement glass this could be a valuable deterrent to a theft.

Which parts should be OEM factory I.D. marked?

The parts most frequently targeted by thieves for resale are:

When thieves steal plant to dismantle/strip-it-down to sell its component parts, the following is their preferred list of the most valuable and saleable parts - in order of the thieves' preference:

- 1) Engine
- 2) Transmission
- 3) Axle
- 4) Hydraulic Rams
- 5) Pumps
- 6) Track Motors
- 7) Tracks / Wheels
- 8) Chassis
- 9) Cab

The Business Case & Cost for the OEM.

The new Plant I.D. upgraded product offering specified above should cost the OEM the same as the redundant I.D. product.

This is because many OEMs already reproduce the I.D. serial numbers 3 times (minimum) on each machine as follows: (a) one chassis metal plate (which may be obsolete) and (b) the serial number is already stamped twice onto the body of the machine.

Some OEM Manufacturers do not allocate a charge for tasks that take less than 15 minutes when building the machine.

Other manufacturers allocate a build charge of €1 euro per minute to cover build/labour/administration costs.

The cost of implementing the new Plant I.D. product versus making the old product redundant is insignificant - zero.

The project will circumvent any further requirement for additional OEM or aftermarket retrofit registration, marking or identification products to be fitted to the machine and paid for by the ERA Membership.

OEM PR Opportunity & Corporate Social Responsibility

OEMs have a responsibility at manufacture to provide their customers with the means to verify their ownership of a machine, as required.

It is the ambition of the ERA European Rental Association that these proposals, which can be implemented by OEMs at insignificant cost, will be specified by our Hire Company Membership to their OEM Suppliers who will endorse and adopt these draft proposals.

Competitive Analysis: Retro-fit Aftermarket supplementary machine registration and marking mechanisms:

For many years independent suppliers in different EU territories have offered supplementary machine registration and marking schemes.

OEMs who supply machine registration and marking systems in addition to their own VIN products add cost to the price supply chain for the machine e.g. a product sold to an OEM for €50 will cost the distributor c €90 and an additional €140 to the ERA Hire Company that buys the machine.

This document concludes that there is validation for these charges to the ERA membership.

Concluding Summary:

The solution proposed within is for a review by OEM Manufacturers of their existing plant I.D. Products.



**Thank you for considering these proposals from
ERA-European Rental Association.**
