

Immobilisers – fit for purpose?

Not all immobilisers are appropriate for plant – but guidance means you don't need to be caught out

IMMOBILISERS

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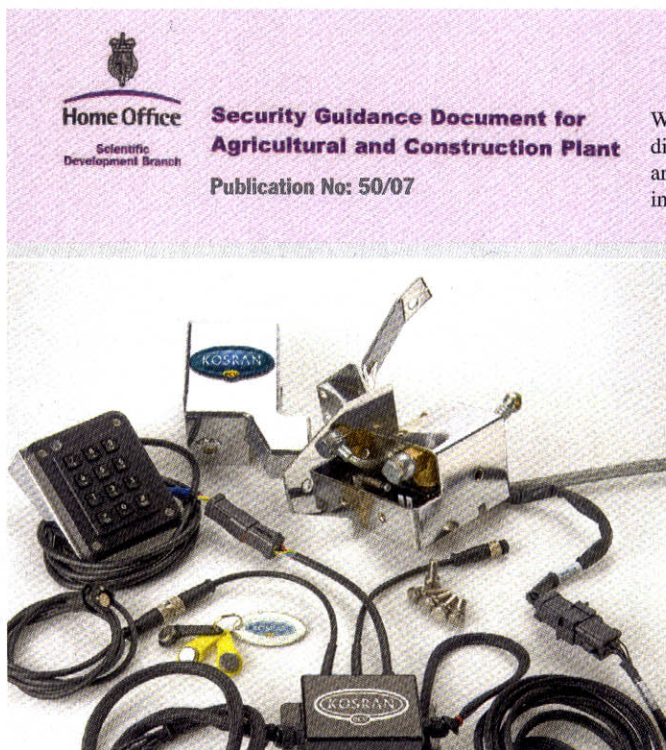
Engine immobilisers are recommended by both the Home Office and Thatcham to help prevent theft. But picking the right immobiliser can be a challenge. Some of the options which are available on the market may not be fit for purpose, according to government advice.

The Home Office has previously published official advice in its *Security Guidance Document for Agricultural and Construction Plant*, which details a range of various systems that are appropriate for securing equipment. According to the guidance, engine immobilisers are probably the “most practical” method of preventing mid-range equipment being stolen. Immobilisers should also be able to withstand attack for at least 12 minutes.

But one important qualifier is the type of immobiliser. According to the Home Office, “while plant continues to use mechanical, high compression diesel engines, electrical immobilisers [as found on cars] are ineffective and electro-mechanical immobilisation systems should be used. Electromechanical systems primarily shut off the diesel fuel supply and/or the hydraulics and may provide ancillary electrical immobilisation of two or more electrical circuits as a deterrent.”

Fit for purpose

Kosran manufactures electromechanical immobilisers. Managing director Patrick Sheeran explains why purely electrical immobilisers aren't fit for purpose. “Because the engines in plant are mechanical, it's impossible to shut them off electrically,” he says. “An electric immobiliser works by cutting off the ignition and the starter motor. A thief can use crocodile clips to



The Home Office says electromechanical immobilisers should be used on diesel engines

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bypass the electric immobiliser, and turn over the engine,” he says.

Mr Sheeran says that electromechanical immobilisers work differently. “The difference is you include a ‘smart’ valve, which is fitted at the fuel inlet. The valve opens when the correct PIN code is typed into a keypad, allowing

the flow of fuel. When the valve is closed, no fuel flows to the engine. The valve's located at the inlet as that means there's no residual fuel in the engine that could be used to run the machine temporarily,” he says.

Unsavory characters

He warns that owners and operators need to be aware of the nature of thieves and should use theft prevention systems that actively discourage them. “We know from the police that plant theft can be linked to organisations which are also involved in drug trafficking and guns, so we're tackling some tough people,” he says.

An electromechanical immobiliser can be an effective deterrent, he says, because it takes more material and time to defeat. “Beating an electromechanical immobiliser requires a lot of

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ELECTRO-MECHANICAL IMMOBILISATION SYSTEM

It is impossible to hot-wire an electro-mechanical immobiliser

ELECTRIC IMMOBILISER 90 SECONDS

This is how long it takes to bypass an anti-start electric immobiliser, without using a key, cutting a wire or damaging the machine in any way.

equipment and could take 90 minutes for a skilled mechanic. A potential thief would require drills, fuel lines and extra piping.

“Also, this kind of system replaces the OEM piping in the engine, which can act as a deterrent as it is unfamiliar. If you were a plant thief, why would you bother trying to take all that effort and time where you could be detected, when you could just steal something that is less protected?”

However, operators should also take care to keep PIN codes secure to prevent thieves being able to bypass the immobiliser. Smaller equipment could still possibly be craned onto a lorry too, and taken to a more convenient location for the thief. But following Home Office guidance and picking the right immobiliser could increase the chances of equipment staying on site.