

# **CRIME PREVENTION FOR FUEL TANKS:**

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## **Introduction:**

Theft of fuel, particularly diesel, is not a new crime. With the rise of fuel costs, theft of diesel from large commercial vehicle tanks and diesel storage tanks has risen. And although not totally unheard of before, theft of heating oil has increased too, with thieves targeting tanks commonly found in the more rural locations like the grounds of village schools, village halls, some commercial sites and, of course, the grounds of private dwellings.

### ***Why heating oil?***

So called 'drive-offs' have increased from filling stations, involving offenders failing to pay for fuel. But these aside, rather than thieves siphoning fuel from lots of cars over several hours from vehicles parked in roadsides and driveways, it's far more logical to them to target fuel where it can be found stored in much larger quantities, often in far less conspicuous locations. Stolen heating oil too has a 'black market' value and is found in plentiful supply within vulnerable sites.

Thus far in Dorset we do not have a significant problem in the category of fuel theft of any type. This is cold comfort of course for those who have been affected, sometimes several times. But I stress this point because the fear of this type of crime, like others, can actually be disproportionate to the actual problem. If you do nothing to protect your tank, the odds are against it being targeted. **But if a thief is actually in your area, then those odds increase significantly!**

## **Risk factors:**

To what degree your fuel is at risk from theft is both a region and site-specific matter. What you do to reduce that risk is subjective, depending on several things. For example; the quantity and value of the fuel; how crucial the fuel is to your day-to-day domestic or business life- or both; how many times you or your neighbours have been struck before; your available budget and your philosophy are also factors.

The more physical considerations include things like the location of the tank, both in terms of the where your site is and where within the site the tank is situated. Other considerations include how overlooked, or not, the site and tank are; how well lit the site and tank area is- although some thefts happen in daylight; how accessible the site is, both on foot and via vehicle. Aside from demand, the final risk factor is what security measures you have already put in place to put off, obstruct and frustrate would-be thieves, or at least to limit the effects of their actions.

## **Is it worth doing anything to try and prevent theft?**

Yes it is. But the first thing to say is that no single measure is usually enough. A **package of measures** is usually more successful. Secondly, a determined well-equipped thief will usually succeed. But the fact is that most of them seek the line of least resistance and where fuel sites are plentiful they will usually steer away from those that they know or discover are not 'soft' targets.

People who don't get targeted are not just benefiting from low odds of being struck. Many of them, either by design or co-incidence, have tanks in sites that are not soft targets for a variety of reasons. Can we prove they don't get targeted because of measures in place? Most of the time we cannot, but I firmly believe in preventative measures from professional experience and I therefore recommend you do whatever you can that is **appropriate, realistic and cost effective**.

### **Crime Prevention tips:**

I cannot give site-specific advice within this handout, so I will give generic advice that I feel could benefit most domestic or small business situations.

#### **Tank location- The two schools of thought:**

Some would maintain that a tank situated where the passing public can see it is best, as thieves would be less likely to target it for fear of being seen. This argument has merit.

Others maintain it is better to site a tank out of view of the public, and therefore potential thieves. The trouble is, this argument has merit too.

I must leave that judgement up to you. I would not expect you to go to the expense of re-sighting your tank unless it has been targeted several times. Also bear in mind before you re-site a tank, or install a new one, that most thieves will expect that where there is one tank, others will exist in the same area, it's just a matter of finding them. Wherever your tank is, the following measures should be considered. Not all will be applicable, or viable.

#### **Secure perimeter:**

Try and secure the grounds, or yard, in which the tank is situated. This could just involve padlocking a gate. Yes, it could be climbed over, but remember that thieves will seek that line of least resistance, and this involves preferring not to have to climb over gates, or force them. Also, if they are caught within 'enclosed premises' (usually only legally applicable where casual, unobstructed access is not possible) and it is felt they are present for unlawful purposes, they could in theory be arrested by anyone (although I advise this should be a police officer).

The main gain when casual access is prevented is that if trespassers are seen and possibly challenged they know that a whole raft of what I call 'court plausible' excuses for being present are no longer applicable or viable. It is much easier to get an impression of someone's intention when you know they must have climbed over a gate, or fence, to get into your property. My main

point here is that they are less likely to be there in the first place. The stumbling point on this one is mail delivery and visitors. But a gate could be secured between certain hours of your choosing, or an externally sited post box could be installed. An intercom device could accommodate legitimate callers. Bear in mind this practice will put off many would-be burglars too, who rely on casual access ability.

#### Clear unobstructed view:

Try and engineer a situation where you and ideally your neighbours overlook the tank. In the case of dwellings, the closer to the building the better. This could just involve cutting some flora back, or raising a view obstructing low tree canopy height to at least 2m.

#### Security lighting:

Install one or more movement triggered lights to serve the area of the tank, and its approach route. Make sure they are not within easy reach and don't leave implements lying around that could be used to move or disable them. 150w could be enough, 300w at the most. 500w ones should be avoided for environmental reasons.

Some argue that lighting can just aid thieves if crime scenes are not overlooked. Again, this argument has merit, but I fall down on the side of 'do it anyway'. Most thieves will still feel very self conscious and uncomfortable if suddenly bathed in security lighting. Witnesses have a better view of what is going on when an area they are looking at is served by lighting. This could be you from your window, or a neighbour, or passing member of public if the area is in view from a public space. Such lighting will also serve you in a practical health & safety sense.

#### Gravel:

Gravel serving the access route to a tank, or just around it, will make noise when trodden on. This could alert you and / or again just make a thief uncomfortable.

#### Defensive planting:

Where viable, plant thorny / prickly plants around the tank, but do consider the delivery person! This and gravel may seem futile, but remember the 'package of measures' principle, they all have their place and role to play.

#### Padlocks:

I'm deliberately steering away from advice to 'fortify' the tank itself in relation to the fuel outlet points. This may sound odd, but there have been examples where tanks have been breached in a crude fashion, avoiding padlocks, but resulting in holes that allow remaining fuel to leak into the immediate environment. This would be a big problem! Having said this, most fuel tank owners understandably secure the main outlet points with at least one

padlock. I have to leave this up to you, but do check your insurance conditions as they may recommend, or insist on, certain minimum measures like padlocks.

#### Inner compound / surround:

Creating an inner-compound, or physical surround, around a tank will at least frustrate access to it and at best put a thief off totally. This could involve fencing, but ideally would involve railings with no toeholds, that are at least six feet high. Over eight feet, and a 'hazardous topping' can be installed as long as you have erected effective warning signage (See Occupier Liability Act 1984). An alternative to railings could involve 'weld-mesh' or common 'chain-link' fencing, but the latter can be cut easily. Any compound should obviously have an access point that is secured with at least one 'closed-shackle' padlock.

#### Secure containers:

There are a few companies that provide bespoke secure containers for fuel tanks. These are expensive, but for some this is appropriate, realistic and cost effective- depending on their situation.

#### Fuel tanks in buildings:

Fuel tanks within buildings are much less vulnerable, depending on the level of security serving those buildings. Much can be done to secure buildings that contain assets, whatever they are. Without appropriate security measures, buildings just provide cover for thieves having entered them. My brief advice in this area would involve robust good quality locks serving doors, bars inside windows and installation of an alarm system. **Please note, there are strict regulations concerning the storage of fuel tanks in buildings. You should take appropriate expert advice before considering this.**

#### Technical measures:

There are some technical measures that can serve fuel tanks too. I am a great fan of the use of passive infrared detectors (PIR's) that are becoming more widely available in various forms. The particular ones I refer to can be used in the open air or 'harsh environment'. They are wire free and battery operated.

A typical minimum configuration of this type of equipment would involve at least one PIR detector strategically sited at a fuel tank location, or the access point to it (assuming only one access route is physically viable). If someone came within the range of the detector, it would send a radio frequency signal to a receiver located within a nearby building with a 13amp socket to plug it into. The receiver would make a noise loud enough to alert the occupier, but not the trespasser. This would prompt a visual check from a safe position and potentially a call to the police.

A variation would, in my mind, ideally involve the adding of a 'rook scaring' element in the form of a small siren that extends from the detector, out of a window or through a wall, and into the open environment. This would be loud enough to alert you and the trespasser, instantly letting them know that their presence has been detected and, in theory, the police are being called. Most would-be offenders will flee straight away, ideally empty handed, particularly if they felt they were being observed and reported to the police **(bear in mind that a 999 call is only warranted where you have confirmed the cause of the alarm i.e. a suspicious person(s)- and if they prove to be innocent, that's fine- you would not be criticised).**

Wild or domestic animals, or innocent parties who pass in close proximity, can be allowed for by careful placement of PIR's. So-called 'corridor', or 'straight line' detectors will also minimise false activations. Or, you can just turn the receiver off between certain hours when you know there will be legitimate presence. This would be a basic configuration, but additional features are possible, like receivers linked to your phone line that contact pre-set phone numbers- allowing for when you are away from home (or your business).

For research, if you have internet access, put the words "alarms" and "farms" in a 'Google' search engine. Several companies will pop up that provide more information on this type of equipment, together with prices. I cannot recommend particular companies or specific products. There are cheap versions of this type of technology available on the high street. But their performances may not match more expensive versions and, ultimately, you get what you pay for. While the more expensive equipment can never be guaranteed to perform 100% all the time, it may be more reliable than cheaper versions.

But if your will and / or your budget is such that you only consider the cheaper division of this type of equipment, then it is still worth investing in. Either way, as I have said, technological measures should be part of a potential package of measures and no one measure should be relied on to constitute a healthy deterrent to theft.

There is also similar equipment that communicates like a mobile phone would. This allows much greater ranges of coverage where needed.

There are devices that are sometimes seen on fuel tanks that communicate low levels of fuel to the owner to prompt them to cause a top-up, or the supplier is prompted automatically. I am still researching these to establish how easy they are to disable and if they could be adapted to alert or even awaken owners if levels dropped suddenly.

New to the market is a radio frequency based alarm device that fits inside a fuel tank lid. But it requires an alarm system to communicate with in an adjacent building and would not, in any case, activate it if another part of the tank or its fittings were targeted. But this may be food for thought for some and its good to see the security industry adapting existing technology in response to new or emerging problems.

### Fuel dye:

Fuel dye is not a new concept. Red diesel is very common. There are some companies that can provide different colour dyes that do not affect fuel performance and that do not breach any Customs & Excise laws. However, as far as I am aware the dyes are not unique in as much as they would not identify your fuel if it were stolen. There are such products, but it seems they have not as yet been modified and made available for the use in fuel, or at least not ones that are overtly visible.

I am monitoring any developments, as this would be ideal. In the mean time, I am experimenting with existing fuel dyes at various sites, to see if there is a deterrent effect caused by overt warning stickers that go on the tanks. Unique or not, should a police officer check someone in possession of dyed fuel, this could in certain circumstances assist to generate legal grounds to search and even arrest on suspicion of theft, or dishonest receiving.

### CCTV:

I have little faith in non-live monitored CCTV systems. Very few are of good enough quality to result in recorded images that can assist to detect a given crime. And even if they were, and good quality facial images are achieved, those images would also have to show an offence being committed and those faces would have to be identifiable following circulation.

In my opinion, it is much better to concentrate on other measures as a higher priority that are aimed at preventing an offence, rather than recording one.

Having said this, overtly visible systems and high visibility warning signs can put some offenders off. And where a CCTV system communicates live images to relevant others when triggered, then this permutation becomes a very effective measure. All that would be required would be the ability to see something suspicious, not necessarily clear and close up images of suspects. In these circumstances, a 999 call to the police would be acceptable. We call this 'confirmation technology'.

I cannot recommend so called 'dummy' cameras, as they are bluff measures. But if it was these or no CCTV at all, then I would say why not? particularly if the remit of the cameras was deterrent, rather than detection. CCTV is a huge topic area, and expert technical advice should be sought from accredited installers before investment. My main advice briefly being, you must get in writing (in plain English) what you want the system to achieve.

### Irony prevention!

I hope the content of this handout has been useful and given you food for thought at least. But do bear in mind that the most important asset you have is your home premises and its contents. If you are improving the security of your fuel tank, make sure you review your main dwelling premises too.

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