

A game of TAG

We all remember mothers sewing names into school pullovers to improve the chances of recovery should they go astray. The idea has survived, been refined and, as Douglas McCartney explains, could help prevent valuable machinery from disappearing.

If the most profitable criminal activity in the world is drugs, the second most profitable is most definitely theft. Overall crime is estimated to cost Britain more than £20 billion a year.

During the late 1980s the UK motorcycle industry was faced with a crisis which threatened its very existence. That crisis was theft. In 1989 nearly 85,000 machines – around 10% of all registered motorcycle – were stolen. Losses were so great that in 1990 the industry's leading insurer, with 62% market share, announced a withdrawal of theft cover for high performance machines, no theft cover for high risk areas and no theft cover for owners under 28 years of age. In short, the industry was faced with virtual destruction.

The main problem centred around "ringing" – machines stolen and broken for spares or rebuilt from written off machines. As in most cases of professional crime, police intelligence units were aware of those involved but the ease with which existing markings such as frame and engine numbers could be removed had meant that even when suspected thieves were caught in possession of machines or parts with dubious provenance no clear evidential link could be established with actual stolen property. The result, in many cases, was that suspected stolen property was being returned to those suspected of stealing it.

Physical security products such as hitch locks, wheel clamps, ground anchors, padlocks, etc. present only a mild irritation to

the determined thief. Though such products may deter the opportunist amateur they would not provide a long term solution to the problem.

It was reasoned by the police and auto crime experts that a truly effective, permanent identification system, would greatly increase risk of detection/conviction and at the same time greatly reduce the value of items stolen. Technical groups from the leading motorcycle manufacturers began testing various existing marking systems – eye legible, magnetic and electronic. Both eye legible and magnetic were cheap but easily overcome and were discounted.

The final solution was Datatag, an electronic identification system, developed by multi-national giants Yamaha Motor and AEG Electronic of Germany.



Datatag scanning gun

At the heart of the Datatag system is a coded microchip transponder or "tag" which is designed to be hidden inside property. These tags do not require power and because they are so small they can be covertly fitted to items ranging from something as small as a Bonsai tree through to large earth movers.

Tags contain a microprocessor circuit linked to a read/send antenna and are preprogrammed with a 10 character Hexi-Decimal code which enables more than 500 billion code combinations. Programming is carried out using a sophisticated laser etch system which means codes cannot be



Warning signs: a powerful deterrent

altered or deleted when attacked by electrical or magnetic devices, or even exposure to low level radiation. Tags vary in size from as small as a grain of rice to a credit card.

Tags are read by scanning devices supplied to Police, Customs and other authorised bodies free of charge. When an item is scanned the tag number is displayed on the scanner and is then cross referenced with the Datatag main frame computer through a private Videotext system also supplied to authorities free of charge. The Datatag computer is on-line 24 hours per day, 365 days per year and provides details of the item, owner and any incident including crime reference number and Police Station handling.

Since 1992 Datatag has reduced motorcycle theft from 10% of bikes registered to less than 1% and is available through all motorcycle main dealers. Recoveries of whole or part machines are currently around 55%. Numerous prosecutions have resulted. More than 120,000 bikes are now fitted with Datatag and discounts are available from all leading insurers.

With a proven system and a national infrastructure Datatag is now operational in a number of additional markets including: plant and construction, cycles, marine craft, caravans, equestrian, computers to name but a few.

It may be argued that there is little common ground between motorcycles and ground maintenance equipment which is true apart from ...a dramatic increase in theft incidents, high value equipment, easily removable

identification, large second hand market, notoriously difficult to secure and low risk of detection and prosecution for the criminal.

Datatag recognises these similarities and in 1996 launched a tagging project into the garden and agricultural machinery markets. The project has the backing of the British Agricultural & Garden Machinery Association and involves BAGMA members tagging all types of golf course and grounds maintenance equipment, ranging from hedge trimmers, and chainsaws to tractors and trailers. Greenkeepers will be only too aware of the high value of modern golf course equipment and the increasing number of thefts and should seriously consider the electronic tagging as a norm rather than the exception.

Costs vary in relation to the item to be tagged and range from around £20 for pedestrian mower to around £80 for a JCB. All items tagged display prominent warning signs which have proved an effective deterrent in all markets where Datatag is operational.

In recent years a number of companies have attempted to copy the Datatag system. To date none has succeeded mainly due to a lack of technical know how and financial stability. Datatag has spent in excess of £2 million on development and infrastructure provision. It is estimated that a total spend will exceed £4 million in order to satisfy fully scanner and Videotext demand.

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