

Preventing Theft of Contractors' Equipment

Introduction

Theft of contractors' equipment continues to be a serious problem for the construction industry. Although the cost of this theft is not precisely known, the *National Equipment Register (NER)* estimates the total value of equipment stolen annually from construction sites range between \$300 million and \$1 billion. These statistics represent the value of stolen equipment and do not include indirect costs from business interruption such as short-term rental costs, project delays, and lost production time. Theft of contractors' equipment has been steadily increasing over the last nine years; the Insurance Services Office (<http://www.iso.com>) reports the value of heavy-equipment thefts has been increasing by as much as 20% each year since 1996. Equipment theft occurs with all types of construction contractors in all geographic areas. A 2003 survey conducted by *Equipment World* magazine showed that almost 70% of the contractors that responded to their survey had experienced equipment theft.

The frequency of theft closely follows the amount of construction volume in a particular area; the states with the highest volume of construction usually have the highest number of thefts. Historically, contractors' equipment theft occurrences are divided evenly between organized rings and individual (non-professional) thefts. However, the number and sophistication of professional theft rings that have concentrated on construction have increased recently. Organized theft rings are using the internet to resell stolen equipment to unsuspecting contractors or dismantle the equipment for resale of parts. Equipment used in North America is often stolen for export to Central and South America.

In addition to having a high frequency of theft, the construction industry also experiences very poor equipment recovery rates. The recovery rate for stolen contractors' equipment, estimated by the *NER* to be less than 10%, is a fraction of the national stolen-auto recovery rate of 62%, as stated in the FBI's Uniform Crime Report (<http://www.fbi.gov/ucr/ucr.htm>).

Why is Contractors' Equipment Theft So Prevalent?

The high frequency of contractors' equipment theft, and the very low recovery rate of stolen equipment, is attributed to the following conditions that are inherent to the construction industry.

- Construction sites are often in remote, poorly lit areas.
- Security at construction sites is often lacking (during construction operations and off-hours).

LOSS CONTROL TIPS

- Off-road vehicles and equipment do not require titling and registration. Equipment is only identified by product identification numbers, (PIN), not the standard 17-digit vehicle identification (VIN) numbers used for cars and trucks. PIN formats are not standard and their placement is not uniform.
- Many mobile equipment manufacturers use common keying on their equipment (a single key fits both the cab door and the ignition for each model they manufacture).
- Authorized users of equipment are not always clearly defined.
- Many contractors do not have a good inventory of equipment they own or lease.
- There is a high demand for construction equipment and spare parts, especially when the construction economy is booming.
- Purchases of new equipment often require long lead-time before delivery can be made.
- There is often a delay in theft discovery and reporting (i.e. equipment stolen over the weekend not discovered until Monday morning).
- The lack of pre-purchase checks in the used equipment and spare parts markets.
- Law enforcement has limited resources that can be dedicated to equipment investigations.

All of these factors make the construction industry attractive to thefts. The very low recovery rate of stolen equipment means that thefts are successful the majority of the time. Having stolen one machine, and found how easy it was to resell, causes the theft to continue until being caught. Professional theft rings often pay construction employees for information and availability.

Inventory Control

The first step in effective theft prevention is for contractors to know exactly what equipment they own or lease and know where the equipment is at all times. Procedures should be established to maintain an inventory control program which records at least the following information on each piece of equipment:

- Equipment manufacturer and model number;
- Serial, VIN, or PIN number (if available) – if none, a unique number should be placed on the equipment and recorded;

- Date of purchase (information needed in the event of a claim, manufacturers' recall, evaluation of equipment durability and related issues);
- Location of storage and use;
- Photograph; and
- Personnel (names or job titles) authorized to operate the equipment.

Equipment owners must look at the *mobility* of equipment as well as *value* when looking at which equipment to focus security effort on. All too often contractors only concentrate on high value equipment and do not evaluate the ease of mobility. Cranes are high value pieces of equipment on any construction site but are seldom stolen as they are difficult to transport and easily identified thus making them hard to resell. Smaller, more commonly used mobile equipment is usually the target of thefts. According to the *National Equipment Register (NER) 2004 Equipment Theft Report*, (<http://www.nerusa.com/index.asp>) three types of construction equipment (skid steers, tractors, and backhoes) account for 68% of the losses; this equipment can be easily transported using a small trailer and easily resold (since they have little unique characteristics). Other commonly stolen equipment are generators, compressors, welders, pumps, and arrow/message boards since these are also highly mobile (often times trailer-mounted) and easily resold.

Prevention

There is no single method or device that can eliminate theft of contractors' equipment. However, the construction industry and its suppliers have devised various means to limit losses from equipment theft. Theft prevention methods can be categorized as follows:

- Secure the premise/worksites
- Secure individual equipment
- Register equipment
- Track equipment

An effective theft prevention program should include more than one approach and should be revised to reflect variations among construction sites. Similar to a contractor's safety and health program, supervisors should be held accountable for administering the theft prevention program and jobsite inspections should be made to verify effectiveness.

Secure the Premise/Worksite: Securing the entire construction worksite is a common theft prevention method used by general contractors. This method can be very effective for smaller, well-defined sites but can be cost prohibitive

for larger, more spread out worksites. Securing the entire premise usually involves one or more of the following controls and provisions:

- Perimeter fencing
- Controlled access points (as few as possible)
- Police patrol or private guard service (particularly during off-hours)
- “No Trespassing” signs posted along the perimeter
- Proper illumination throughout the site
- Closed Circuit Television (CCTV)

Secure Individual Equipment: Securing individual equipment and supplies is often the preferred method of theft control when the contractor does not control the entire site, when the site is large or spread out, or when equipment must be left where it was last used at the end of each workday. Many contractors, such as street/road and site contractors, leave equipment on site each night to avoid the labor and fuel expenses associated with returning equipment to a central location at the completion of each workday. Securing individual equipment usually involves one or more of the following controls and provisions:

- Lock and key controls specific for each piece of equipment with a written key control program (i.e. use of a sign-out sheet)
- Use of “high security” locks only (unique key, pick resistant, case hardened or laminated steel)
- Prohibit the use of combination locks
- Use locks, chains and/or cables to secure equipment fitted with towing hitches or are trailer mounted; alternatively, remove the towing hitches or trailer wheels
- Use locking fuel caps on all mobile equipment
- Metal grating over windows and doors of office trailers
- Immobilize office and storage trailers to prevent theft of the entire trailer
- Locked gang boxes to secure smaller power and hand tools
- Mechanical tire locking devices (i.e. wheel boot device) to immobilize construction vehicles
- Alarm systems that disable the equipment and/or sound an alarm if a theft attempt is made

Register Equipment: The *National Equipment Register (NER)* (<http://www.nerusa.com/index.asp>) offers a voluntary registry service that will register construction vehicles and make this database available to law enforcement to assist in the recovery. All registered vehicles are marked

with *NER* decals, which increases the likelihood of detection while moving, storing, or selling the equipment, and acts as a theft deterrent. The registration consists of entering a machine’s serial number, engine number, transmission number, and other selected identification numbers into a *NER* database.

Track Equipment: There are theft deterrence systems that track equipment after a theft is discovered and others that continuously track equipment. For example, certain systems for construction equipment are designed to recover stolen construction vehicles and equipment. When the owner discovers the equipment missing and calls law enforcement to report the theft, the systems automatically become activated.

Global positioning system (GPS) fleet management systems have an inherent theft detection and tracking capability by continuously monitoring (tracking) construction equipment. Most GPS systems have a “geofence” capability that generates an alert if a vehicle leaves a permitted area or enters a prohibited area. In addition, many systems can define a secure period (i.e. off-hours) and generate an alert if a vehicle moves or is moved during that period. Another inherent capability of a GPS-based system is the use of software to electronically disable vehicles so they cannot be illicitly moved (electronic lockdown). With this system, a contractor can remotely disable or enable equipment ignition, monitor vehicle condition, and generate an alarm if the equipment moves outside of predetermined boundaries.

Training

Effective theft prevention requires both management commitment and operator involvement. Management should establish written procedures for the shut-down, security, and storage of construction equipment. Written guidelines should be established on securing equipment during overnight stays (i.e. hotel accommodations) and/or whenever operators are allowed to take equipment home. Superintendents and foremen should be held accountable for administering the company’s theft prevention program.

Equipment operators should be involved throughout the process and be trained in the following:

- Secure vehicles and other equipment even when leaving it for short periods of time
- Park vehicles in well lit, high traffic areas whenever possible
- The company’s inventory control program
- Use and maintenance of established theft prevention controls

This training should be included in the orientation program and reinforced during regularly scheduled training sessions (i.e. “toolbox talks”). In addition, equipment operators should be consulted to provide input on possible theft control measures for the equipment they use.

For more information, contact your local Hartford agent or your Hartford Loss Control Consultant. Visit The Hartford’s Loss Control web site at <http://www.thehartford.com/corporate/losscontrol/>

The information provided in these materials is intended to be general and advisory in nature. It shall not be considered legal advice. The Hartford does not warrant that the implementation of any view or recommendation contained herein will: (i) result in the elimination of any unsafe conditions at your business locations or with respect to your business operations; or (ii) will be an appropriate legal or business practice. The Hartford assumes no responsibility for the control or correction of hazards or legal compliance with respect to your business practices, and the views and recommendations contained herein shall not constitute our undertaking, on your behalf or for the benefit of others, to determine or warrant that your business premises, locations or operations are safe or healthful, or are in compliance with any law, rule or regulation. Readers seeking to resolve specific safety, legal or business issues or concerns related to the information provided in these materials should consult their safety consultant, attorney or business advisors. All information and representations herein are as of March 2009.