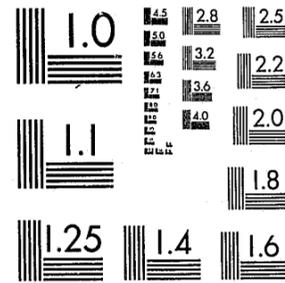


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MARCH 1981



Heavy Equipment Theft

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MAR 13 1981

ACQUISITIONS



THE COVER: This month's cover highlights the problem of heavy equipment theft. See story p. 1.

Federal Bureau of Investigation
United States Department of Justice
Washington, D.C. 20535

William H. Webster, Director

The Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by law of the Department of Justice. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through December 28, 1983.



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76013
Crime Problems

Heavy Equipment Theft

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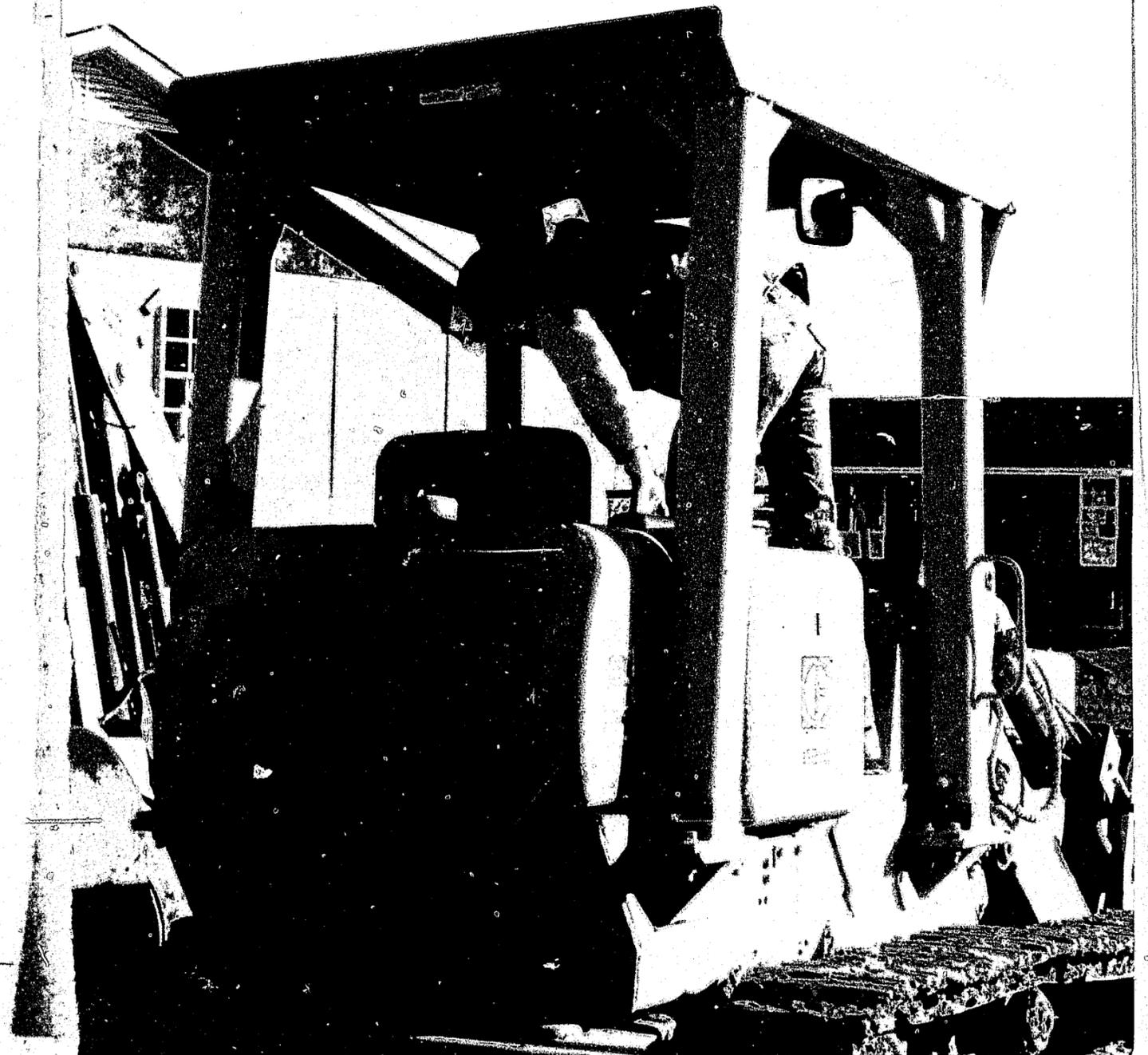


Figure 1

General Contractor Theft and Vandalism Losses

	1979	1978	1977
Theft of Equipment	\$408,088,108	\$341,854,000	\$328,600,000
Vandalism to Equipment	97,531,655	124,471,000	161,120,000
Theft of Material	108,977,532	91,274,000	167,920,000
Vandalism to Material	25,117,915	20,710,000	
Vandalism to Work-in-Place	43,576,832	46,461,000	64,660,000
Sabotage	91,169,520	13,869,000	
Total	\$774,461,562	\$638,639,000	\$722,300,000
Average per General Contractor	12,642	10,425	10,216

Figure 3

Make	Model	Value
1. Case Backhoe	580C	\$38,000
2. Caterpillar Truck Loader	977	115,000
3. John Deere Bulldozer	JD750	71,000
4. Caterpillar Wheel Loader	966	131,000
5. Ford Front Loader	340	18,000
6. Massey-Ferguson Loader Backhoe	MF40	27,000
7. Caterpillar Bulldozer	D8	234,000
8. John Deere Backhoe	JD410	35,000

Thefts of construction and farm equipment are growing problems affecting equipment manufacturers, distributors, owners, and law enforcement personnel across the entire country. The Associated General Contractors of America reported in June 1980, that the total losses from theft and vandalism to general contractors was a staggering \$774 million in 1979. This figure represented a 21-percent increase over the 1978 figure of \$638 million. The average loss per general contractor went from \$10,425 to \$12,642. Theft losses alone rose from \$341 million to \$408 million, a 22-percent increase.¹ (See fig. 1.)

Most affected by this type of theft are the contractors, and ultimately, the consumer. Contractors lose equipment and suffer construction delays, higher insurance payments, and increased financial burdens. The cost of construction theft must, therefore, be absorbed by the consumer if contractors are to stay in business.

There are no complete statistics that show the extent of the heavy construction and farm equipment theft problem, but an analysis of records presently contained in the National Crime Information Center (NCIC) by W. E. Rutledge, California Highway Patrol, revealed that presently there are approximately 10,000 pieces of heavy construction and farm equipment on file as stolen.² (See fig. 2.) This same analysis reveals that there are eight pieces of equipment which are "most often stolen." (See fig. 3.)

These figures are astronomical and disheartening when the recovery rate for heavy construction equipment is approximately 6 percent.³

The investigation of construction and farm equipment theft is a frustrating and time-consuming experience that is made difficult by problems with manufacturers, owners, and law enforcement itself. These problems make construction equipment theft a high-profit, low-risk crime.

Types of Thieves

Construction and farm equipment theft is unique. Many thefts are for profit by professional theft operators stealing, to order, for stripping or export. Daily, we see newspaper articles that depict professional theft operations of intrastate, interstate, and international movement of stolen equipment.⁴ This type of movement can only be accomplished by well-organized professional criminals.

Manufacturers

Construction and farm equipment, unlike conventional motor vehicles familiar to every police officer, have no standard permanently affixed identification number. Each manufacturer has its own numbering system which can vary from 4 to 15 characters in length. The identification numbers vary in height, composition, and location, and identification plates are easily removed.

Figure 2

The following is a numerical list of outstanding farm and construction vehicles by state. These figures represent information taken from a NCIC printout, which was examined entry by entry to validate each entry. These figures are as accurate as can be determined.

	Sept. 1978	Sept. 1979	Mar. 1980		Sept. 1978	Sept. 1979	Mar. 1980		Sept. 1978	Sept. 1979	Mar. 1980
Alabama	143	175	163	Kentucky	353	276	281	Ohio	494	464	462
Alaska	6	6	7	Louisiana	72	80	92	Oklahoma	301	266	272
Arizona	187	230	279	Maine	10	8	6	Oregon	79	72	81
Arkansas	83	148	101	Maryland	174	168	146	Pennsylvania	796	374	344
California	909	1,054	1,373	Massachusetts	130	109	108	Rhode Island	33	20	14
Colorado	45	58	58	Michigan	750	609	452	South Carolina	53	68	65
Connecticut	67	76	56	Minnesota	81	106	95	South Dakota	12	9	10
Delaware	35	34	23	Mississippi	116	85	106	Tennessee	330	289	298
Dist. of Columbia	5	3	4	Missouri	365	382	389	Texas	1,293	1,750	1,959
Florida	202	201	217	Montana	6	13	10	Utah	15	31	40
Georgia	237	278	324	Nebraska	94	61	66	Vermont	3	5	2
Hawaii	11	11	11	Nevada	17	25	32	Virginia	197	157	162
Idaho	11	15	20	New Hampshire	7	12	15	Washington	99	104	99
Illinois	738	585	505	New Jersey	161	155	170	West Virginia	41	41	69
Indiana	733	544	369	New Mexico	22	22	16	Wisconsin	94	81	96
Iowa	125	155	53	New York	337	266	251	Wyoming	4	4	6
Kansas	133	116	92	North Carolina	182	200	217	Misc.			7
				North Dakota	13	9	15				
				Total	1978	1979	1980				
					10,404	10,010	10,108				

Compiled by W. E. Rutledge, California Highway Patrol



Special Agent Lyford

Most pieces of heavy construction equipment have several identification plates for component parts. These plates are frequently confused by police officers who are unfamiliar with construction equipment. Professional thieves merely remove the identification plate and replace it with a counterfeit plate. Confidential numbers are spot-welded over or completely cut out, making later identification and recovery very difficult.

Equipment that has key locks is easily jumped by placing a screwdriver or pocketknife blade across the electrical posts on the starter. Thieves carry common keys, one key per make or model; a single key can be used to start that make or model.⁵ Antitheft devices that would help solve these problems are costly options offered by most manufacturers.

The International Association of Auto Theft Investigators and the Construction Industry Manufacturers Association are addressing these problems and have formed committees that are working to develop standards relevant to construction machine identification numbers. Standardized identification numbers will assist law enforcement personnel in investigating construction and farm equipment theft.

Owners

Owners of construction and farm equipment have a unique theft problem because there is generally no registration or title required for any of the off-road equipment. Owners are against any titling or registration because they believe it limits the ability of the contractor to move equipment freely around the country. It could also be a form of taxation at local, State, and Federal levels. The potential amount of taxes levied on equipment valued at millions of dollars for an individual contractor would cause an additional financial burden that would be passed on to the consumer. The fact that there is no required titling, in itself, generates

major problems. There frequently is no way to determine the accurate serial number of stolen equipment, causing entry of stolen equipment information into NCIC to be inaccurate or incomplete. There is no method for quickly tracing equipment to determine a chain of ownership. As a result, equipment can be easily sold to unsuspecting buyers or to someone who wants a "good deal."

Equipment owners also have the problem of inventory control. Construction equipment spread over several miles of a job site, left idle for days or weeks at a time in isolated areas, is a temptation to a professional thief. If the equipment is stolen, it is frequently days before the theft is noticed and reported to the police. This gives the thief an advantage when transporting and selling the equipment.

Law Enforcement Problems

The primary law enforcement problem when dealing with construction and farm equipment theft is the unfamiliarity of most law enforcement officers with construction equipment or terminology. Few departments have officers specialized in construction and farm equipment theft who can properly locate valid identification plates for entry into State computer systems and NCIC. Theft reports with inaccurate or improper information are used for entering the vehicle into NCIC, thereby making retrieval of accurate information difficult. The law enforcement officer must depend on the owner's records and expertise when reporting the thefts and when identifying stolen equipment.

National Crime Information Center

The FBI, as manager of NCIC, maintains computerized files of wanted and missing persons and stolen articles. More than 11,000 Federal, State, and local law enforcement agencies are linked, through computers and a sophisticated telecommunications network, to NCIC. The purpose of NCIC is to provide law enforcement officers with timely and accurate information that enables them to determine whether an article or vehicle is stolen.

Construction equipment is included in NCIC under two separate categories. The vehicle file category includes "any motor-driven conveyance designed to carry its operator." This includes trailers, engines, and transmissions. Any serialized item not meeting the criteria for entry into the vehicle file can be entered in the article file. For example, items such as hay balers, cultivators, plows, and buckets for bulldozers and tractors would be entered in the article file.

Another problem with heavy equipment is that a piece of equipment can be known by different names in different parts of the country. An example of this is front-end loaders which have been entered in NCIC as backhoes with loaders attached, loaders with backhoes, shovels, tractor crawlers, farm tractors, bulldozers, and motorized farm equipment. This equipment should also be identified as farm or construction equipment. Computer edits on NCIC vehicle entries implemented in October 1980, will assist in controlling this problem.

Theft Prevention Techniques

Construction and farm equipment owners can follow some simple rules which should enhance their chances of recovering stolen equipment and aid law enforcement personnel.⁶

Immediately upon delivery of purchased equipment, owners should:

- 1) Ask the equipment dealer to assist in locating and recording the identification numbers and the serial numbers of all components, attachments, and parts. The owner should be sure the numbers are accurately recorded with the insurance company and should file these numbers where they are readily accessible for quick reference.

- 2) Discourage thieves by installing and maintaining adequate lighting, gates, and fencing of equipment at yards and job sites. Request neighbors and the appropriate law enforcement agency to give extra attention to these areas during weekends and evenings.
 - 3) Make frequent inventories of equipment to detect losses as early as possible.
- In the event of theft, an owner should:

- 1) Notify the nearest law enforcement agency, provide investigators with all serial numbers, and inform them where these numbers are located on the equipment. Remind investigators to submit the identification number to the NCIC.
- 2) Doublecheck the theft report for accuracy. Within 24 to 72 hours, request a law enforcement agency to make an NCIC administrative check to confirm that the identification numbers have been accurately recorded in NCIC.
- 3) Make periodic contacts with investigators to ensure that the stolen equipment remains on NCIC's active list.
- 4) Ask the dealer to provide investigators with pictures or illustrations of the type of equipment stolen and the location of the serial numbers on this type of equipment. Also ask him to post a description of the machine, including serial number, for his sales and service personnel and customers to see.

What Can Law Enforcement Do?

Law enforcement can take the following steps to help reverse increasing equipment thefts:

- 1) Become familiar with off-road equipment by visiting dealerships and learning about the various numbering systems being used, where the serial plates are located, and where, if applicable, the component numbers are found.

- 2) Determine what type of documentation, if any, the dealer supplies to the purchaser of equipment and what type record system the dealer maintains in order to verify ownership.
- 3) Become familiar with the workings of NCIC. He can learn what type of equipment is entered in the vehicle file and which machines are entered into the article file.
- 4) When checking out suspicious equipment, don't stop with NCIC if there is reason to believe the machine was obtained under less than legitimate circumstances. Contact the manufacturer, supply all identification numbers, and request that they furnish the name of the purchaser so ownership can be established.
- 5) Make contact with operators of off-road equipment to obtain their help in tracking down stolen equipment.⁷

FBI

Footnotes

¹ The Associated General Contractors of America Crime Prevention Bulletin #80-11, June 17, 1980.
² W. E. Rutledge, California Highway Patrol, Visalia, California Summary Analysis of NCIC Records, March 1980.
³ Construction Equipment Anti-Theft Program, Summary Report for J. I. Case Company, by Bozell & Jacobs Public Relations, Inc., Milwaukee, Wis., April 29, 1980.
⁴ Sun Paper, (Baltimore, Md.), by Kelly Gilbert and Wiley Hall, March 21, 1980; Pioneer Press, (St. Paul, Minn.), February 11, 1980; Los Angeles Times, by Ronald B. Taylor, July 27, 1980.
⁵ Ronald B. Taylor, "Heavy Equipment Thieves, Taking Heavy Toll in State," Los Angeles Times, July 27, 1980.
⁶ Stop Construction Equipment Theft, by J. I. Case, Company Form CE91579, 1980.
⁷ Henry J. Balevic, "Off-Road Equipment Theft: Law Enforcement's Latent Challenge," *The Police Chief*, December 1979.

END