

## Magnetic Manhole Cover and Grate Lifting

*Magnetic manhole cover lifters are designed to “help save the backs” of those who have to lift manhole covers and storm grates. However, there have been people reportedly injured while using these devices. Upon investigation, it was determined that people were not instructed in how to safely use the lifters, or, they didn’t follow the manufacturer’s instructions.*

*The purpose of this bulletin is to remind employees of the basic safety rules when using magnetic lifting devices. However, it is not a substitute for reading the manual or being trained in how to properly use this equipment. It is being offered to complement that training.*



Set up the site with the necessary cones or other traffic warning methods including, if needed, a flagger. When in a work zone ensure that all workers are wearing the proper safety vest, good gloves and safety boots. Set up the lifter’s position so that the wind is at the lifter’s back, blowing dust and sewer gasses away from them.



Clean off the top of the manhole cover, as it may be covered with a layer of dirt, debris and other material. You can use a heavy-duty broom if the debris is loose, or you may need a shovel if the debris has become compacted. Tap the cover with a maul to loosen it. If the cover is solid, you should monitor for flammable gasses around the edges or in pick holes before opening.

Check the manhole cover design to determine the proper method of removal. Make sure that the weight of the cover / grate matches the capacity of the lifting device. Remember that open grates mean less contact area for the magnet, so you should use judgment when considering the lifting capacity.

You also need to consider the surface you are working on. If you are on soft ground such as grass, your device should have larger wheels than would be necessary on concrete. Chocking your wheels is recommended.

Different cover and grate designs call for different hooks, magnets and shaft adjustments. Make sure you are using the right fastener for the job. Bear in mind that magnets do not work on covers that have asphalt over them. When attaching the magnet or hook, make sure it is centered. If it is not, the cover or grate will not be easy to control and you may lose it in the hole or injury yourself. If you are using two magnets or two hooks, make sure the chain is centered on the lifting head (as shown in the photo to the left. You can easily check this by counting the chain links on each side; the links should be the same number.

Ensure that the handle is adjusted for the lifter’s size and the weight of the cover being lifted. Likewise, make sure the lifting head connected to the cover is properly adjusted. If the wheels of the device are touching the cover, the lifting head needs to be adjusted.



When lifting, slowly push the lifting handle down. Don't jerk it and don't put your full body weight on the handle; doing this may cause you to lose control of the load. Remind the lift to use their legs, not their back.

To replace the cover, use the same technique.

**WARNING!**

*Manufacturers recommend that if you wear a pace maker, do not operate a magnetic lifting attachment!*

**FINALLY**

Remember the “15 Second Safety Rule”. *Take 10 or 15 seconds and think before you act.*

Remind your lifters to ask themselves, “Am I abiding by the safety rules?” “Do I thoroughly understand how this device is to be safely used?” “Do I have the right people and equipment?”

Remind your workers that if there are any doubts or concerns - Stop and call someone before they put others or themselves at risk.