

MAINTENANCE INSTRUCTION MANUAL

ELECTRICAL MAGNETIC CONTROL SYSTEM



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MAGNET OPERATION **INSTRUCTIONS**

DON'T:

- **NEVER ATTEMPT TO OPERATE THE MAGNET UNTIL YOU READ AND UNDERSTAND THE MAINTENANCE INSTRUCTION MANUAL.**
- **NEVER STAND NEAR LOAD.** Any load can potentially drop unexpectedly due to power loss or some other system failure.
- **NEVER LIFT LOADS OVER PEOPLE OR IN CLOSE PROXIMITY TO PEOPLE.**
- **DO NOT USE THE MAGNET AS A BATTERING RAM.** Remember, magnets are made for lifting only. They'll last for years when treated properly. Using a magnet as a battering ram may cause damage to the coils or insulation,
- **DO NOT USE THE MAGNET AS A DROP BALL.** If you want to break up big pieces of scrap or slag, use a drop ball. Careless use of a magnet means unnecessary repair bills, lost production and lost time.
- **DO NOT GREASE THE CHAIN.** If there are abrasive particles in the air, such as foundry sand or slag dust, the grease will cause it to adhere to it. This dust will then act like a grinding compound and soon wear away at the chain material. If there is no way around greasing the chain, use graphite grease only, just grease lightly and wipe of any excess.
- **NEVER PERFORM MAINTENANCE ON ANY PORTION OF THE MAGNET SYSTEM WITHOUT INSURING THAT POWER HAS BEEN COMPLETELY TURNED OFF AND THE MAGNET HAS BEEN PROPERLY DISCHARGED.**

DO:

- √ Keep the power "OFF "until magnet is in contact with the pile. Small pieces won't jump up and prevent the magnet from getting full load. This also helps to prevent the magnet from overheating. Remember, "a hot magnet will not lift as much and won't last as long".
- √ Work on deep piles. Let the magnet settle on the deepest part of the pile. Then, switch the magnet "ON". To let the magnet get a good bite, leave the power on for approximately 3 s for magnets up to a 50 A, 5 s for magnets up to 100 A and 8 s from magnets larger than 100 A.
- √ Make big piles. When you are almost done cleaning up your piles, use the magnet to "sweep up" the smaller piles that have been left, into one big pile. A good magnet operator will get the largest load possible on every lift.
- √ Set the magnet down easy. Set your magnet down gently and you will save money on repairs, parts and time. Our magnets are built to withstand the gaff but don't handle them carelessly.
- √ Keep the bolts tight. Check your bolt tightness periodically. Bolts can become stretched, allowing the center pole shoe to come away from the face of magnet core. This will cause reduced lift and a dangerous situation. The bolts can snap allowing the center pole shoe to fall off
- √ Keep the magnet dry. When you are through with the magnet, store the magnet where it is dry. Leave it off the ground, on the pile of scrap, a pile of tires or on a pallet. Letting it cool off on the ground may cause it to absorb moisture. NEVER cool a magnet with water. Rapid cooling may cause the steel section or welds to crack.
- √ Watch the magnet temperature Remember to monitor your duty cycle and voltage. If you are exceeding the recommended duty cycle of the design or voltage for the unit, the magnet will overheat. When handling hot slabs or ingots, watch the temperature carefully. If it gets too hot, switch to a spare magnet to finish the job. ***DO NOT LEAVE THE POWER ON WHEN THE MAGNET IS NOT IN USE.***