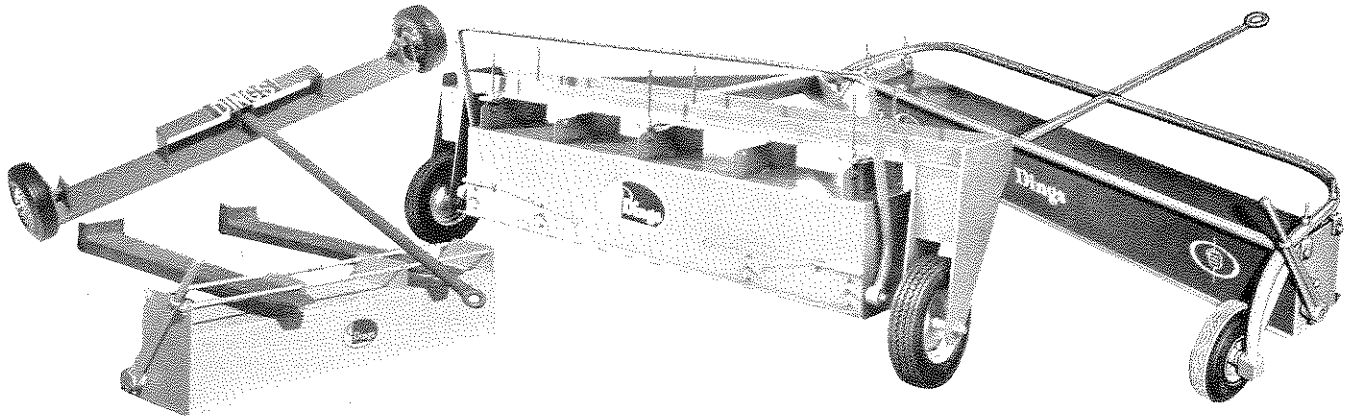




## MAGNETIC ROADSWEEPER INSTRUCTIONS

This bulletin applies to all models of Dings Co. Magnetic Road sweepers identified by these names: TIREGUARD, ROADGUARD, ATLAS, ATLAS XL, REMOTLAS, REMOTLAS XL.



Before using any model the first time, read 3 sections in this bulletin: DESCRIPTION, GENERAL and the section headed by the name of your model on the next page.

### DESCRIPTION (all models)

Magnetic Road sweepers remove tire damaging steel scrap, nails, screws, etc. from traffic areas such as roads, parking lots, driveways, ramps, etc. Magnetic sweeping is accomplished when the Sweeper is carried at some clearance over the surface of traffic areas.

Some models can be attached to a vehicle bumper or suspended on a fork lift. Some models are equipped with a trailer for towing. Every model contains a magnet assembly that spans the sweeping width. In Tireguard models the magnet assembly is exposed. In all other models the magnet assembly is heavier, more powerful and contained inside a metal box housing.

No models use electricity to generate magnetism. The magnetism is produced by permanent magnets inside a magnet assembly. This magnetism is permanent. If the magnet assembly is never damaged or dismantled, the magnetism will remain at full strength indefinitely.

### GENERAL (all models)

All models are built for continuous duty. They can be used as frequently as desired, outdoors or indoors. Performance is not affected by weather conditions, climate or altitude.

Performance is affected by speed and road clearance. Metal will not be picked up if speed is too fast or road clearance is too high. Usually, the slower the speed, the higher clearance can be — up to a maximum. Metal buried or stuck in a surface (nail in asphalt) will not be picked up at any speed or clearance.

Guidelines on speed vs. clearance are shown for each model in the sections that follow in this bulletin. The speeds and clearances shown are for pickup of large nails. Tire damaging objects such as large nails and long screws are easier to pick up than objects such as small nails, short screws and hex nuts. If small steel objects must be picked up, reduce clearance and speed below guidelines.

The flat bottom of the magnet assembly on the Tireguard, and the flat bottom of the box housing on all other models, should be parallel to the roadway. Sweeping efficiency drops if the bottom is tilted front to back or side to side.

Don't allow magnetically attracted metal to build up on the bottom. An excessive buildup absorbs magnetism and causes a "short circuit effect." Consequently, there may not be enough magnetism that will reach the roadway to pick up more metal. When sweeping areas where much metal is encountered, discharge metal off the bottom frequently. In most applications metal is encountered only occasionally, and frequent discharging is not necessary.

Don't travel with trailer models at excessive speed when not sweeping. Wheels on Atlas, Atlas XL, Remotlas and Remotlas XL trailers are designed for towing speeds up to 55 mph. Tireguard and Roadguard wheels are designed for slower speeds.

There are no special requirements for storing. A dry location is recommended to minimize rust. Lubricate bearings after long storage.

## TIREGUARD

Read earlier sections under DESCRIPTION and GENERAL before continuing here.

All standard units include a trailer. Road clearance is adjustable from 1/2" to 2". The trailer frame and wheels can be removed for an application where the magnet assembly will be mounted on a vehicle or suspended from the tines of a forklift.

### GUIDELINES — ROAD CLEARANCE VS. SPEED

Loose lying large steel nails will be picked up if:

Clearance is:	and Speed is:
1/2"	12 mph or less
1 1/4"	8 mph or less
2"	4 mph or less

### DISCHARGE OF METAL

The Tireguard is not equipped with a manual release mechanism. Attracted metal must be removed by hand. Use a wood block to push metal off the bottom surface of the magnet assembly. Wear gloves for protection.

### MAINTENANCE

The wheels have solid rubber tires. The wheels were factory lubricated, but they should be re-lubricated periodically. Maximum towing speed is 20 mph.

## ROADGUARD

Read earlier sections under DESCRIPTION and GENERAL before continuing here.

Standard units are a Trailer Type, a Bracket Type and a Forklift Type. Road clearance on the Trailer Type is adjustable from 1 1/2" to 3". Adjust clearance by using wrench to turn hex nuts on 4 vertical adjustment screws that hold the housing box to the trailer frame. Be sure housing on all types is parallel to roadway.

### GUIDELINES — ROAD CLEARANCE VS. SPEED

Loose lying large steel nails will be picked up if:

Clearance is:	and Speed is:
2"	10 mph or less
3"	7 mph or less
4"	5 mph or less

### DISCHARGE OF METAL

All types include a manual discharge mechanism for releasing attracted metal. It operates by moving a long cast metal handle attached to a shaft that extends through one end of the housing box. Pull handle down to release metal. While holding it down, slide locking pin outward from its position on housing box. The pin will lock discharge handle in release position so that the Sweeper can be moved away from the deposited metal. Remember to slide locking pin back into original unlocked position before resuming sweeping.

### MAINTENANCE

All bearings were factory lubricated, but they should be re-lubricated periodically. There are grease fittings on trailer wheels and 2 on one side of the housing box. The fittings on the box connect to bearings inside supporting the discharge mechanism. Maintain 30 lbs. air pressure in tires on Trailer Type. Maximum towing speed is 20 mph.

## REPLACEMENT PARTS

PART NAME	MANUFACTURER'S DESCRIPTION	DINGS PART NO.
Tireguard Wheel	2.50" x 8"	100324
Roadguard Wheel	3.50" x 10" 2 Ply	100492
Atlas/Remotlas and XL Wheels	4.80" x 16" 4 Ply Rated	100582
Atlas/Remotlas and XL Wheel Bearing Kit*	—	—
Fulton Coupling 1 7/8" Dia. Ball	#108 CL.I	100501
Fulton Coupling 2" Dia. Ball	#22200 CL.II	104290
Roadguard Discharge Handle	B7680-1	100290
Remotlas Switch	McGill 0111-0004 DPDT Momentary On, Center Off	100440
Remotlas Actuator	Warner DCA-10PB-04 12 Volt d-c, 4" Stroke	103749

\*Kit includes 2 each: Inner Bearing Race, Roller Bearing, Sleeve, Grease Seal, Set Collar.

Furnish model name and size of Magnetic Road sweeper, in addition to information above, when ordering parts.

## ATLAS and ATLAS XL

Read earlier sections under DESCRIPTION and GENERAL.

Standard units are a Trailer Type, a Bracket Type and a Forklift Type. Road clearance on the Trailer Type is adjustable from 2" to 6". Remove and discard wood blocks that were used to secure housing box to trailer frame in shipment from factory. Adjust clearance by using wrench to turn hex nuts on 6 vertical adjustment screws that hold the housing box to the trailer frame. Be sure housing on all types is parallel to roadway before sweeping.

### GUIDELINES — ROAD CLEARANCE VS. SPEED

Loose lying large steel nails will be picked up if:

Clearance is:	and Atlas Speed is:	and Atlas XL Speed is:
2"	15 mph or less	16 mph or less
3"	10 mph or less	13 mph or less
4"	8 mph or less	10 mph or less
5"	5 mph or less	7 mph or less
6"	—	4 mph or less

### DISCHARGE OF METAL

All types include a manual discharge mechanism for releasing attracted metal. It operates by moving a long horizontal pipe handle attached to both ends of a shaft that extends through both ends of the housing box. The pipe handle telescopes outward if desired for greater leverage. Pull handle down to release metal. While holding it down, push 2 steel locking pins outward from position on housing box. These pins will lock discharge handle in release position so that the Sweeper can be moved away from the deposited metal. Stiff wire extenders attached to the locking pins shorten the reach needed to lock or unlock pins. Slide both locking pins back before resuming sweeping.

### MAINTENANCE

All bearings were factory lubricated, but they should be re-lubricated periodically. There are 4 grease fittings on one side of the housing box. They connect to bearings inside supporting the discharge mechanism. Maintain 60 lbs. air pressure in tires on Trailer Type. Maximum towing speed is 55 mph. Raise box to upmost position before towing at speeds above 20 mph.

## REMOTLAS and REMOTLAS XL

Read earlier sections under DESCRIPTION and GENERAL.

Standard units are a Trailer Type, a Bracket Type and a Forklift Type. Road clearance on the Trailer Type is adjustable from 2" to 6". Remove and discard wood blocks that were used to secure housing box to trailer frame in shipment from factory. Adjust clearance by using wrench to turn hex nuts on 6 vertical adjustment screws that hold the housing box to the trailer frame. Be sure housing on all types is parallel to roadway before sweeping.

### GUIDELINES — ROAD CLEARANCE VS. SPEED

Loose lying large steel nails will be picked up if:

Clearance is:	and Remotlas Speed is:	and Remotlas XL Speed is:
2"	15 mph or less	16 mph or less
3"	10 mph or less	13 mph or less
4"	8 mph or less	10 mph or less
5"	5 mph or less	7 mph or less
6"	—	4 mph or less

### DISCHARGE OF METAL

All types include an electric actuator discharge mechanism. It's powered by the 12 volt battery in the operator's vehicle and controlled by a remote 3 position switch installed where convenient in the vehicle. The 3 position switch is spring returned to a center "Off" position to prevent battery discharge when movement of the actuator is not required. Placing this switch in one of the "On" positions will move the actuator and discharge mechanism to a load discharge position — attracted metal will drop off the bottom of the housing box. Placing the switch in the other "On" position will move the actuator and discharge mechanism to a load pickup position — ready to sweep.

An overtravel clutch free wheels at each end of the actuator stroke to prevent damage to the actuator. Remember to place the switch in the "On" pickup position before resuming sweeping.

### WIRING DIAGRAM FOR SWITCH AND ACTUATOR



Sweepers with 2 actuators must be wired in parallel to avoid damage.

### MAINTENANCE

All bearings were factory lubricated, but they should be re-lubricated periodically. There are 4 grease fittings on one long side of the housing box. They connect to bearings inside supporting the discharge mechanism. Periodically oil 3 pivot pins on the actuator mechanism. Periodically inspect wires for abrasion and look for loose parts. Maintain 60 lbs. air pressure in tires on Trailer Type. Maximum towing speed is 55 mph. Raise box to upmost position before towing at speeds above 20 mph.