



# OPERATOR'S INSTRUCTION MANUAL

MODEL : 110 000 \_\_\_\_\_

ENGINE MODEL : \_\_\_\_\_

SERIAL : \_\_\_\_\_

ENGINE SERIAL : \_\_\_\_\_

DATE OF PURCHASE : \_\_\_\_\_

PURCHASED FROM : \_\_\_\_\_



## ⚠️ WARNING ⚠️

THIS PRODUCT IS DESIGNED AND MANUFACTURED TO PROVIDE SAFE AND DEPENDABLE SERVICE IF OPERATED ACCORDING TO INSTRUCTIONS. THE MANUFACTURER PROVIDES THE FOLLOWING INSTRUCTIONS FOR USE AND CARE OF THIS EQUIPMENT AND RELIES UPON THE PURCHASER TO SEE TO IT THAT THESE INSTRUCTIONS ARE MADE CLEAR TO THE PERSONS WHO WILL ACTUALLY BE USING THE EQUIPMENT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE.



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## 110 000 MANUAL GRAVEL SPREADER

Thank you for purchasing this quality GRIZZLY product. With proper use and care, this Manual gravel spreader will provide many years of reliable service. For the safety of all job-site personnel it is mandatory that the instructions provided for the use and handling of the equipment be read and thoroughly understood by the operators.



### CAUTION

**INTENDED USE; THIS MACHINE IS INTENDED TO BE USED ON FLAT, LEVEL ROOFS ONLY FOR THIS APPLICATION, GRAVEL SPREADING. ANY OTHER USE OF THIS EQUIPMENT VOIDS THE MANUFACTURER'S WARRANTY AND IS THE SOLE RESPONSIBILITY OF THE OWNER/USER, SHOULD ANY DAMAGE OR INJURY OCCUR.**



## PREPARATION

### OPERATOR

START BY READING AND FULLY UNDERSTANDING OPERATING INSTRUCTIONS. IF SOMETHING IS NOT UNDERSTOOD, HAVE SOMEONE ELSE READ AND EXPLAIN THE INSTRUCTIONS TO THE OPERATOR OR CALL THE MANUFACTURER FOR INFORMATION. AN UNINFORMED OPERATOR CAN SUBJECT HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

## WEAR PROPER ATTIRE

Safety glasses are recommended and must be worn if any roof cutting or scraping is being done in the vicinity. Safety glasses and or face shield are also necessary when working with hot stuff.

Wear properly fitting clothes. Tight clothing can restrict movement and slow down reaction time in a dangerous situation.

Loose fitting clothing can be dangerous and cause serious injury if it gets caught in moving mechanical parts. Wear a long-sleeved shirt, buttoned at the cuffs, safety shoes, and pants without cuffs, and knit wrist type gloves.

A hard hat must be worn by operator when working on a job site.

## ROOF PREPARATION

### INSPECT ROOF DECK

Before allowing equipment and personnel access to roof, make certain roof is strong enough to support the weight. Check load limits of deck with owner, builder or architect. Clear the work area of all potentially dangerous obstacles that could cause personal injury to the operator or others. Keep unauthorized people away from construction area. Check to see that all roof openings are guarded to protect against falls.

### WARNING LINE SYSTEM

When operating parallel to roof edge warning line system must be at least six feet from edge. When operating perpendicular to edge warning line must be ten feet from roof edge.



## HOISTING MACHINE TO ROOF

**WARNING : ALWAYS CHECK DECK LOAD LIMITS WITH BUILDER, OWNER, OR ARCHITECT BEFORE DECIDING TO USE ON THE ROOF.**

### INSPECT THE HOIST

Make certain hoist is in safe operating condition, to be operated by trained personnel. The hoist should be clear of ground objects and overhead obstacles, such as power lines; it should be secure and properly counterbalanced. Hoist should be inspected for frayed cables, bent frame members or faulty mechanical parts. Make sure everyone on the ground is completely clear of the hoisting area. Do not exceed the weight and size capacity of your hoist. Do not use if you are in doubt.

### CONNECTING TO LIFT RINGS

Two hoist rings are provided on frame as shown in fig. 2. Connect hooks from hoist line to hoist rings when lifting Gravel Spreader only. Always lift machine by these rings using the proper hook and cable. Do not attempt to lift the machine by any other part. Always inspect rings for wear or damage and make sure the hoist, cable, hook, etc. are in good running order or damage or injury may result.

**WARNING : NEVER LIFT GRAVEL SPREADER WITH GRAVEL CONTAINED!!!**



Fig.2

**WEIGHT:** 115 lbs



## SAFETY PRECAUTIONS

- Do not allow other people to be near the machine during operation (except operator)
- Do not hoist the Gravel spreader with gravel contained.
- Never operate equipment that is damaged in any way. Repairs or replacement of damaged components must be made
  - by a qualified mechanic.
- Do not modify the equipment. Do not operate a modified piece of equipment.
- Avoid slick areas on the roof to prevent slipping.
- Wear safety footwear and snug fit clothing.
- Be trained to do the specific job before operating the equipment on an actual job.
- Do not exceed weight carrying capacity of the deck. Check with owner or architect for deck capacity.
- Operate on flat, level roofs only.
- Guard all openings in the roof.
- Do not operate within 10 feet of roof edge (or within 6 feet, if operation in parallel to the edge).
- Do not operate this machine if you are under the influence of alcohol, marijuana, or drugs that could impair judgment and ability.
- Keep the equipment in good condition.
- Make certain the operator and others in the vicinity wear a respirator and other protective gear as conditions warrant.

## OPERATION

### BEFORE OPERATION

- Check machine for cracks, broken welds and other damage. Repair or replace if damaged.
- Tire Servicing: check tire pressure on tires.

Always check tire manufacturer's recommendations for correct tire pressure before inflating tire. (Correct tire pressure should be imprinted on the side of the tire.)

## BASIC EQUIPMENT OPERATION

The Gravel spreader is designed for use inside a perimeter warning system. It is a push type machine and the operator must respect this. Do not operate within 10 feet of roof edge (or 6 feet if operating parallel to roof). Keep well clear of other people on the roof while operating. Do not use the equipment if you don't have a qualified operator.

The Gravel spreader is designed for manual gravel spreading. The adjustable wide door design allows consistent coverage with large ballast rock down to pea gravel.

The Gravel spreader is ideal for spreading pea gravel and stone up to 1" diameter and will handle up to 1½" size. The dispensing lever (no. 7) is designed to be used for different opening needs. An adjustment of screw (no. 8) will make dispenser door open more or less.





Dispersion speed is the operator speed, in function of this is the quality of gravel dispersion.

Do not move the equipment suddenly, injuries can occur.

**WARNING : DO NOT PULL THE EQUIPMENT. SERIOUS INJURIES CAN OCCUR.**

**WARNING : BE SURE THE HANDLEBAR (FIG. 3) IS TIGHTENED SECURELY.**



Fig.3

After reading through all of the instructions, the Gravel spreader should be ready for operation. When operating equipment for the first time, position the equipment on the ground or in an open level area away from obstructions and roof edges. With no load on, practice manoeuvring the equipment.

## MAINTENANCE

Lubrication recommendations are: roller bearings on wheels are pre-lubricated and require no greasing. Needle bearings need to be greased as needed.

The control arm is preset to proper door tension. If more or less tension is needed for door closure, you must disconnect the control arm #9 from the door and turn it clockwise to increase tension or counter clockwise to decrease tension. Reconnect the control arm to the door to check tension. Once desired tension is reached re-tighten the bolt and nut connecting the control arm to the door. (See illustrated parts list)

All mechanical parts should be inspected on a regular basis, and replaced or repaired as necessary. This includes tires, rollers or structural parts of the Gravel spreader.

Tire Servicing: Check tire pressure on all three tires.

Always check tire manufacturer's recommendations for correct tire pressure before inflating tire. (Correct tire pressure should be imprinted on the side of the tire.)



## SAFETY HAZARDS

Safety hazards are not always obvious to workers. Unlike exposure to health hazards, where illness or injury develop slowly, safety hazards usually result in immediate injury or death.

Broken bones, cuts, bruises, sprains, burns and loss of limbs, eyesight and hearing are the kinds of injuries caused by safety hazards.

The rate of occupational injuries in roofing, in fact, ranks in the top ten of all major occupational groups.

### FALLS

Falls are the number one cause of serious injury and death to roofers. An estimated 10 percent of all roofing accidents result from falls off roof edges, through roofing openings or off ladders, more than half of the non-fatal accidents result in serious injury.

Unprotected and unguarded roof edges and roof openings create extremely hazardous conditions.

Ladders with cracked, loose or missing steps: with side rails broken or cracked and not attached firmly to the steps; with broken, loose or missing locks, or coated with grease, oils or hardened bitumen can lead to serious injury. Ladders should always be inspected to make sure they're properly maintained and constructed and that they're long enough to extend three feet above the roof's surface.

Improperly balanced or unstable hoists overturn and will often carry the worker along. Rolls of roofing felt should never be used as counterweight. Workers should know the load capacity; it should be posted.

### BURNS

Skin contact with hot asphalt and hot coal tar pitch usually results in second and third degree burns. They usually involve deeper portions of the skin and are easily infected.

An estimated 16 percent of all injuries are burns from hot stuff. The major causes of burns have been from:

#### Kettle flashes

- Kettle splashes from dropping pieces of coal pitch or asphalt into the kettle
- Slips and trips while carrying hot bitumen in open containers
- Splashes involving transfer operations like from the hot pipe outlet to a hot lugger, from a hot lugger to a mop cart or a pail, or from the kettle to a pail.

### HEAVY LIFTING

Sprains and strains, a majority of which involve the back, are the most common roofing injury and one of the most severe. Almost 30 percent of these injuries result in 10 or more days away from work.





## FIRE/EXPLOSION

Two conditions must be met in order for fires and explosions to occur. First, there must be an ignition source, a welding arc, spark, cigarette, flame or simply a hot spot as in a kettle or tanker. Secondly, there must be the right mixture of vapours (from asphalt, pitch, solvents) and oxygen.

For kettles and tankers, fire/explosion conditions arise when:

- oversized burners are used to fire the kettle, causing localized overheating of the heating tubes creating a hot spot
- the temperature of the bitumen is brought up to the desired operation temperature too quickly allowing the level of bitumen to drop to the level of the firing tubes, allowing excessively high surface temperatures
- heating the bitumen to its flash point (for asphalt, about 525°-540°; for pitch, about 450°-475°)
- the temperature of the bitumen is hot enough to reach the auto-ignition level
- in tankers, the vent pipe is clogged or plugged so that flammable vapours can build up to explosive levels

Many solvents evaporate quickly at roof temperatures. Explosive mixtures of vapours can be readily formed within confined spaces like high parapet walls, in atriums or in any space where little or no ventilation exists. And any kind of spark or flame can ignite the vapours.

## ELECTROCUTION

Low voltage electricity can cause shock, muscle contractions, breathing difficulty, irregular heartbeat, severe burns and death. The route that the current takes through the body affects the degree of injury. Current flowing from one finger to another would not pass vital organ, while from one hand to another would pass through the heart and lungs.

Electrical tools should be properly grounded. The electrical cord should end in a three-prong grounding contact, or the wires should be enclosed in a metal case with a special grounding attachment.

Employers are required to provide ground fault circuit interrupters for all outlets on construction sites that are not part of the permanent wiring of the building. This is actually a fast-acting circuit breaker, which can shut off electricity in a fraction of a second.

Aluminum or other metal ladders pose a serious electrical hazard around electrical equipment and energized lines.

## FALLING OBJECTS

Tools, bricks, materials, buckets, boxes, pallets or almost anything dropped from a sufficient height can cause severe damage. Head injuries, one of the highest compensated injuries to workers, often include brain damage. Workers need protective head gear when working beneath people, tools and equipment.

## FLYING OBJECTS

Objects can be projected by machines, from welding or grinding operations and can be windblown. Tear-off operations, where power cutters, power brooms and power spudders are generally used, are the major source of flying substances. The part of the body most often injured is the eyes.

## UNGUARDED MACHINERY

Exposed blades and chains on powered machinery like hoists and roof cutters can severely lacerate and crush parts of the body. Guards should always be fitted over moving parts to protect workers.

