

**142-1850**  
**SPIKER HEAD 40 INCH**

**For Serial Nos.**  
**406,294,345 and Higher**  
Part No. 4504-503 Rev. A

**Operator's Manual**

# Introduction

## To the Owner

### Introduction

Read this manual entirely BEFORE operating the Z-Plug equipment.

The information presented herein will prepare you to operate the Z-Plug equipment in a safe and knowledgeable manner. Operating the Z-Plug equipment in a proper manner will provide a safer working environment, create more efficient results and promote higher quality.

Keep this manual on hand at all times for ready reference. The tested safety and design(s) of the Z-Plug equipment is dependent upon its operation within the guidelines and limitations outlined in this manual. Operating the Z-Plug equipment outside of the stated safety guidelines presented in this manual run the risk of injury and a void in the warranty.

### Product Registration

Immediately record the model and serial number of the Z-Plug equipment in the spaces below. These numbers can be found on the lower right side panel. Providing this information will help assure that you get the correct parts, informed about any updates or product reviews.

Model Number:

---

Serial Number:

---

# Contents

Introduction .....	2
To the Owner.....	2
Safety .....	4
Safety Alert Symbol.....	4
Safe Operating Practices.....	4
Safety and Instructional Decals .....	6
Specifications .....	7
Systems.....	7
Dimensions.....	7
Setup .....	8
Accessory Removal .....	8
Install Accessory .....	8
Operation .....	9
Dethatching Operations .....	9
Remove Accessory .....	9
Maintenance .....	10
Periodic Maintenance .....	10
California Proposition 65 Warning Information .....	11

## Safety

### Safety Alert Symbol

This Safety Alert Symbol (Figure 1) is used both in this manual and on the machine to identify important safety messages which must be followed to avoid accidents.

This symbol means: **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



g000502

**Figure 1**  
Safety Alert Symbol

The safety alert symbol appears above information which alerts you to unsafe actions or situations and will be followed by the word **DANGER**, **WARNING**, or **CAUTION**.

**DANGER:** Indicates an imminently hazardous situation which, if not avoided, **Will** result in death or serious injury.

**WARNING:** Indicates a potentially hazardous situation which, if not avoided, **Could** result in death or serious injury.

**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **May** result in minor or moderate injury.

This manual uses two other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

### Safe Operating Practices

Always shut off the engine, and remove the key. Wait for all movement to stop and allow the machine to cool before adjusting, cleaning, storing, or repairing it.

The intended use of this accessory is for lawn care.

### Training

- Read the Z-Plug Operator's Manual along with this accessory manual and other training material. If the operator(s) or mechanic(s) can not read the

manuals it is the owner's responsibility to explain this material to them; other languages may be available on our website.

- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- All operators and mechanics should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.
- Only adults and mature teenagers should operate the spreader-sprayer, and even mature teenagers should have adult supervision. Be sure a teenager:
  1. has read and understands the Operator's Manual and recognizes the risks involved;
  2. is sufficiently mature to use caution; and
  3. is of sufficient size and weight to operate the controls comfortably and to manage the spreader-sprayer without taking risks.
- The owner/user can prevent and is responsible for accidents or injuries occurring to himself or herself, other people or property.

### Preparation

- Do Not modify the accessory.
- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use on machines approved by the manufacturer.
- Wear appropriate clothing including safety glasses, substantial footwear, and hearing protection.

#### **▲ CAUTION**

**The machine that this accessory attaches to produces sound levels in excess of 85 dBA at the operator's ear and can cause hearing loss through extended periods of exposure.**

**Wear hearing protection when operating this machine.**

- Inspect the area where the equipment is to be used and remove all rocks, toys, sticks, wires, bones, and other foreign objects which can be thrown by the machine and may cause personal injury to the operator or bystanders.

## Operation

### **⚠ WARNING**

Hands, feet, hair, clothing, or accessories can become entangled in rotating parts. Contact with the rotating parts can cause traumatic amputation or severe lacerations.

- **Do Not operate the machine without guards, shields, and safety devices in place and working properly.**
- **Keep hands, feet, hair, jewelry, or clothing away from rotating parts.**
- Raise the accessory, slow down, and use caution when crossing surfaces other than grass and when transporting the machine to and from the work area.
- Use extreme care when loading or unloading the machine into a trailer or truck.

## Maintenance and Storage

- Raise the accessory, set the parking brake, stop engine and remove key or disconnect spark plug wire. Wait for all movement to stop before adjusting, cleaning or repairing.
- Use care when checking and servicing blades. Wrap the tine(s) or wear gloves, and use caution when servicing them. Only replace damaged blades. Never straighten or weld them.
- Keep all guards, shields and all safety devices in place and in safe working condition.
- Check all bolts frequently to maintain proper tightness.
- Frequently check for worn or deteriorating components that could create a hazard.

## Safety and Instructional Decals

**⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**  
For more information, please visit [www.ttcoCAProp65.com](http://www.ttcoCAProp65.com)

133-8061

decal133-8061

**133-8061**

---

# Specifications

## Systems

### Spiker

18 Rows of spikes

## Dimensions

### Overall Width:

46 inches (117 cm)

### Overall Length:

31 inches (79 cm)

### Overall Height:

22 inches (56 cm)

### Weight:

305 lb (138 kg)

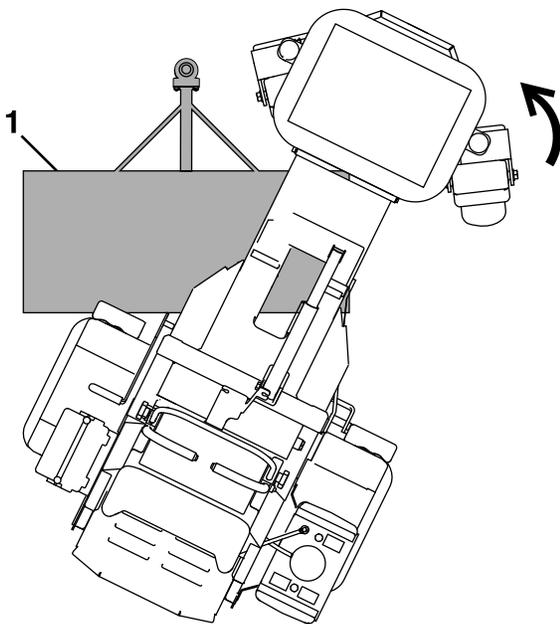
## Setup

### Accessory Removal

Remove any mid-mount accessory that is currently on the machine; refer to the Z-Plug Operator's manual and the installed accessory Operator's manual for instructions.

### Install Accessory

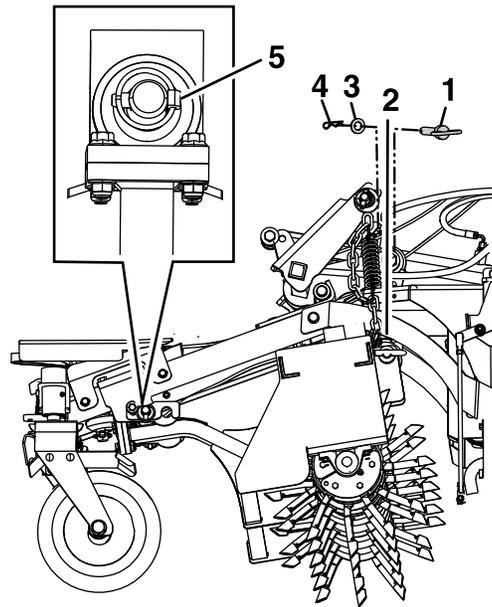
1. Remove the cotter pin, washer, and hitch pin from the lower swivel ball on the lift mechanism.
2. Remove the lynch pin from the pull pin at the front of the machine.
3. Remove the lynch pins from the lift pins on the lift mechanism (both sides).
4. Drive the Z-Plug machine to the rear of the accessory. Position the rear wheel to the middle of the accessory. Slowly start turning the machine over the accessory (make sure that you line up the ball swivel in the neck of the accessory and the pull pin beneath the nose of the traction unit to make it easy for mounting).



**Figure 2**

1. Turning towards accessory

7. Install the lynch pin to retain the swivel ball to the pull pin.



**Figure 3**

- |                |               |
|----------------|---------------|
| 1. Hitch pin   | 4. Cotter pin |
| 2. Swivel ball | 5. Lynch pin  |
| 3. Washer      |               |

g299471

8. Start the machine and lower the lift mechanism using the hydraulic cylinder until the swivel balls at the end of the accessory chains can be installed over the lift pins on the lift mechanism.
9. Install lynch pins to retain the swivel balls to the hitch pins.
10. Raise the lift mechanism center linkage using the hydraulic cylinder until the lower swivel ball aligns with the holes in the accessory.

**Note:** Small adjustments may need to be made to the lift mechanism center linkage when attaching the accessory.

11. Shut off the engine, wait for all moving parts to stop, and remove key .
12. Install the hitch pin, washer, and cotter pin to retain the accessory to the center linkage lower swivel ball.

5. Shut off the engine, wait for all moving parts to stop, and remove key.
6. Slide the swivel ball at the front of the accessory over the pull pin at the front of the machine.

# Operation

## Dethatching Operations

### Operation

When you arrive to desired working area, use the hydraulic Lift Valve Lever (or Thumb Switch) to lower the accessory into the turf. Once you have come to a designated turnaround location, use hydraulic Lift Valve Lever to lift accessory head in transport position. Make designated turn and repeat process of lowering the accessory into turf.

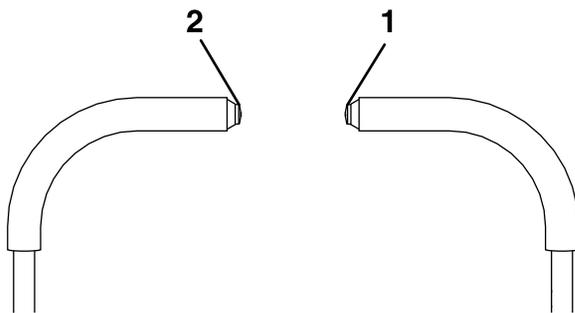


Figure 4

g286617

1. RH motion control thumb switch raises accessory
2. LH motion control thumb switch lowers accessory

7. Lower front neck of the accessory and block up the accessory so it can be stored safely and will make future reinstallation easier.
8. Position yourself back on the traction unit. Drive away from the accessory head (reference Figure 5) by turning the front of the traction unit in either direction.

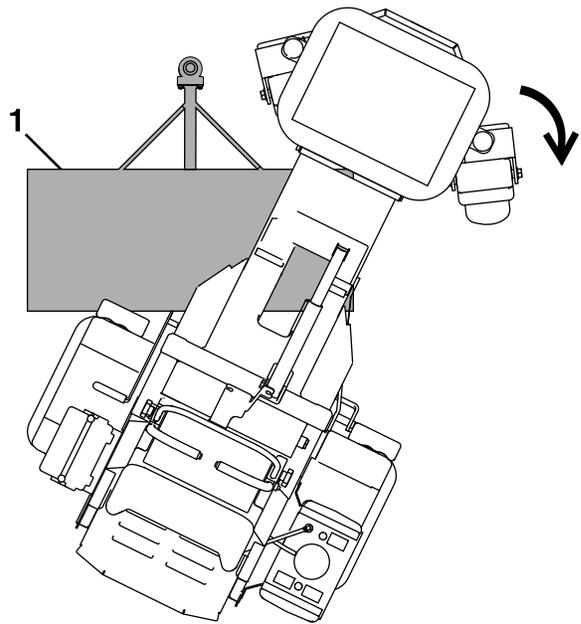


Figure 5

g298889

1. Turning away from accessory

## Remove Accessory

1. To remove the accessory from the unit, first adjust the hydraulic cylinder so the accessory starts to make contact with the ground (taking weight off of the lift mechanism center linkage).
2. Shut off the engine, wait for all moving parts to stop, and remove key.
3. Remove the cotter pin, washer, and hitch pin disconnecting the lift mechanism center linkage lower swivel ball from the accessory head.
4. Start the machine and lower the hydraulic cylinder, releasing tension from the chains.
5. Remove the lynch pins and 2 swivel ball chains connected to the accessories outer frame section (welded chain and spring supports).
6. Remove the lynch pin from the pull pin at the front of the machine and dismount the ball swivel from the pin (pull neck downward).

**Note:** Reinstall removed pins when not in use.

### **Maintenance**

Always shut off the engine, and remove the key. Wait for all movement to stop and allow the machine to cool before adjusting, cleaning, storing, or repairing it.

### ***Periodic Maintenance***

Ensure that all collars are tight and adjusted properly.  
Lubricate each bearing once a year.

# California Proposition 65 Warning Information

## What is this warning?

You may see a product for sale that has a warning label like the following:



**WARNING:** Cancer and Reproductive Harm—[www.p65Warnings.ca.gov](http://www.p65Warnings.ca.gov).

## What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning “is not the same as a regulatory decision that a product is ‘safe’ or ‘unsafe.’” Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to <https://oag.ca.gov/prop65/faqs-view-all>.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the “no significant risk level”; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

## Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

## How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

## Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

## Why does Exmark include this warning?

Exmark has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. Exmark provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from Exmark products may be negligible or well within the “no significant risk” range, out of an abundance of caution, Exmark has elected to provide the Prop 65 warnings. Moreover, if Exmark does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.

Place Model No. and Serial No.  
Label Here (Included in the Literature  
Pack) or Fill in Below

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Engine Model No. and Spec. No. \_\_\_\_\_

Engine Serial No. (E/No) \_\_\_\_\_

©2019 Exmark Mfg. Co., Inc.  
2101 Ashland Ave  
Beatrice, NE 68310  
All Rights Reserved

Part No. 4504-503 Rev. A  
(402) 223-6375  
Fax (402) 223-5489  
Printed in the USA

