

# TERRAINKING™

Engineering Practical Solutions™

## OPERATOR'S MANUAL

**KSB5**  
**KSB6**  
**SICKLEBAR**



Safety Video



[www.algqr.com/kbv](http://www.algqr.com/kbv)

This Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the unit at all times. **READ, UNDERSTAND, and FOLLOW** the Safety and Operation Instructions contained in this manual before operating the equipment.

Important Operating and Safety Instructions are found in the Mower Safety Video that can be instantly accessed on the internet at: [www.algqr.com/kbv](http://www.algqr.com/kbv) C01-Cvr Kubota

Published 08/20

Part No.37002993751C



FC-SB-0002

### Terrain King

1502 E. Walnut St.  
Seguin, Texas 78155-5202  
800-882-5756

**¡ATENCIÓN!**  
LEA EL INSTRUCTIVO



Si No Lee Ingles, Pida  
Ayuda a Alguien  
Que Se Lo Lea Para Que le  
Traduzca Las  
Medidas de Seguridad

Terrain King Web Page



[www.algqr.com/kwe](http://www.algqr.com/kwe)

**MEMBER OF THE  
ALAMO GROUP**  
ALWAYS ON THE CUTTING EDGE®

 <b>PELIGRO</b>	 <b>DANGER</b>
<p>Si no puede leer inglés: antes de poner en funcionamiento este equipo, solicite que alguien le traduzca los mensajes de seguridad o vaya al sitio web para consultar los mensajes de seguridad y las etiquetas ya traducidos.</p>	<p>Si vous ne pouvez pas lire l'anglais : avant d'utiliser l'équipement, demandez à une personne de vous traduire les messages de sécurité ou allez sur le site Internet pour voir la traduction des autocollants et des messages de sécurité.</p>
<p><b>El Manual del Operador Seguridad video</b></p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">   </div> </div> <p> <a href="http://www.algqr.com/kfs">www.algqr.com/kfs</a> <a href="http://www.algqr.com/avs">www.algqr.com/avs</a> </p>	<p><b>Manuel de l'Opérateur</b></p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">  </div> </div> <p> <a href="http://www.algqr.com/kff">www.algqr.com/kff</a> </p>

 <b>PERIGO</b>	 <b>GEFAHR</b>
<p>Caso você não leia inglês: antes de operar o equipamento, peça para alguém traduzir as mensagens de segurança ou visite a web e obtenha tais mensagens ou os decalques traduzidos.</p>	<p>Falls Sie nicht Englisch sprechen: Bevor Sie die Geräte in Betrieb nehmen, bitten Sie eine Englisch sprechende Person darum, Ihnen die Sicherheitsmeldung zu übersetzen, oder besuchen Sie die Website; dort finden Sie übersetzte Aufkleber und Sicherheitsmeldungen.</p>
<p><b>Manual do Operador</b></p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">  </div> </div> <p> <a href="http://www.algqr.com/kfp">www.algqr.com/kfp</a> </p>	<p><b>Benutzerhandbuch</b></p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">  </div> </div> <p> <a href="http://www.algqr.com/kfg">www.algqr.com/kfg</a> </p>



➤ **BE SAFE!**

➤ **BE ALERT!**

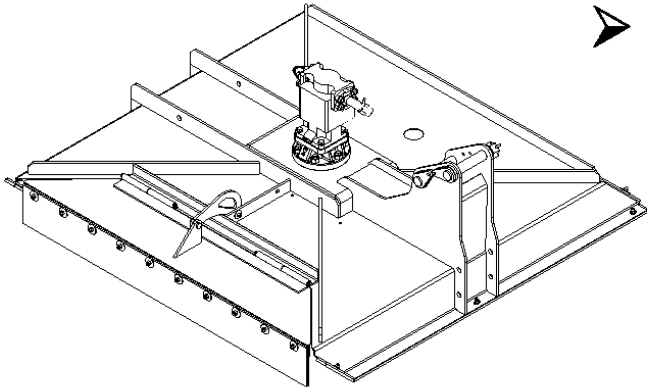
➤ **BE ALIVE!**

➤ **BE TRAINED**  
**before operating**  
**the Mower!**

Safety Video



[www.algqr.com/kbv](http://www.algqr.com/kbv)



## *Safety Training Makes the Difference*

In order to reduce accidents and enhance the safe operation of mowers, *Terrain King*, in cooperation with other industry manufacturers has developed the AEM/FEMA Industrial and Agricultural Mower Safety Practices video and guide book.

The video will familiarize and instruct mower-tractor operators in safe practices when using industrial and agricultural mowing equipment. It is important that Every Mower Operator be educated in the operation of their mowing equipment and be able to recognize the potential hazards that can occur while operating a mower. This video, along with the mower operator's manual and the warning messages on the mower, will significantly assist in this important education.

Your Authorized *Terrain King* Dealer may have shown this video and presented you a DVD Video when you purchased your mower. If you or any mower operator have not seen this video, Watch the Video, Read this Operator's Manual, and Complete the Video Guidebook before operating your new mower. If you do not understand any of the instructions included in the video or operator's manual or if you have any questions concerning safety of operation, contact your supervisor, dealer or *Terrain King*.

If you would like a VHS video tape of the video, please email [AEMVideo@alamo-group.com](mailto:AEMVideo@alamo-group.com) or Fax AEM VHS Video at (830) 372-9529 or mail in a completed copy of the form on the back of this page to AEM VHS Video 1502 E Walnut Street, Seguin, TX 78155. and request the VHS video version. Please include your name, mailing address, mower model and serial number.

Every operator should be trained for each piece of equipment (Tractor and Mower), Understand the intended use, and the potential hazards before operating the equipment.

The information and material listed above along with this Operator's Manual can assist you in meeting the OSHA requirement for Operator annual training.

### **OSHA TRAINING REQUIREMENTS**

**The following training requirements have been taken from Title 29, Code of Federal Regulations Part 1928.57 (a)(6). [www.osha.gov](http://www.osha.gov)**

Operator Instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee who operates an agricultural tractor or implement in the safe operating practices and servicing of equipment with which they are or will be involved, and of any other practices dictated by the work environment.

**Terrain King Division is willing to provide  
one (1) AEM Mower Safety Practices Video**

Please Send Me: ☐ VHS Format – AEM/FEMA Mower Operator Safety Video

☐ DVD Format – AEM/FEMA Mower Operator Safety Video

☐ Mower Operator's Manual

☐ AEM Mower Operator's Safety Manual

Requester Name \_\_\_\_\_ Phone: \_\_\_\_\_

Requester Address: \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

Mower Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Date Purchased: \_\_\_\_\_ Dealer Salesperson: \_\_\_\_\_

Dealership Name: \_\_\_\_\_ Dealership Location: \_\_\_\_\_

Mail to:

AEM Video Services

1502 E. Walnut Street

Seguin, TX 78155

Or Fax to:

(830) 372-9529

Or Email to:

AEMVideo@alamo-group.com



## To the Owner/Operator/Dealer

This Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the implement at all times. A Manual canister is provided on the implement where this manual can be properly stored. If you lose or damage this manual a free replacement manual can be obtained from an authorized *Terrain King* dealer or by downloading the manual from the *Terrain King* website [www.terrainking.com](http://www.terrainking.com)

**BEFORE YOU START!!** READ, UNDERSTAND, and FOLLOW the information provided in this manual, the AEM Mower Safety manual and the tractor operator's manual carefully to learn how to operate and service your machine properly. Failure to do so could result in personal injury to you and bystanders. All implements with moving parts are potentially hazardous. Every effort has been made to ensure that the machine is safe but operators must avoid engaging in unsafe practices and follow the written instructions provided. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

**SAFETY FIRST.** Completely read and understand the safety section of this manual before operating this equipment. Do not allow anyone to operate this equipment who has not fully read and understood this manual. Contact your Dealer to explain any instructions that you do not fully understand.

The care you give your *Terrain King* Implement will greatly determine your satisfaction with its performance and its service life. Carefully read and follow the instructions in this manual to provide you with a thorough understanding of your new implement and its intended use and service requirements.

All references made in this manual to right, left, front, rear, top or bottom are as viewed facing the direction of forward travel with the implement properly attached to the tractor.

Replacement Parts information is located in a separate Parts Manual. *Terrain King* mowers use balanced and matched system components for blade carriers, blades, cuttershafts, knives, knife hangers, rollers, drivetrain components, and bearings. These parts are made and tested to *Terrain King* specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce mower performance, void warranties, and present a safety hazard. Use genuine *Terrain King* mower parts for economy and safety.

For future reference, record your *Terrain King* product model number and serial number.

Dealer		Telephone		Model Number	
Owner		Purchase Date:		Serial Number	



FC-SB-0003

# DEALER to CUSTOMER Pre-Delivery/ Operation Instructions

Dealer should inform the Purchaser of this product of Warranty terms, provisions, and procedures that are applicable. Dealer should inform Purchaser to review the contents of the Operator's Manual including safety equipment, safe operation and maintenance, to review the Safety Signs on the implement (and tractor if possible) and of Purchaser's responsibility to train his/her operator's of safe operation procedures.

- **IMPLEMENTS:** I have explained that Deflectors, Chain Guards, or Solid Skirts must be installed and maintained in good repair.
- **DRIVELINES:** I have made certain that all driveline, gearbox, and other shields are in good repair and fastened securely in place to prevent injuries from entanglement or thrown objects.
- **HYDRAULIC MACHINES:** I have explained the necessity of using clean hydraulic oil, changing filters as instructed, stopping leaks, damage caused by operating with over-heated oil, caring for hoses, using hoses of proper rating, maintaining the specified operating pressure and the potential hazard of oils penetrating the skin.
- **FOLDING-TYPE IMPLEMENTS:** I have explained that it is not possible to guard against thrown objects when the head is lifted off ground and that operator is responsible to watch out for persons in the area. I have explained that the lifted mower head or boom can contact overhead obstructions with damage to cables and telephone lines and possible injury. I have explained that the extended head or boom or retracted boom can contact power lines resulting in electrocution, injury or death and that operator is responsible for keeping clear of such hazards.

## PRE-DELIVERY SERVICE CHECK AND ADJUST OR LUBRICATE AS REQUIRED See Operator's Manual for Details

### Inspection Performed - Warranty and Safety Procedures Explained - Installation Complete

#### LUBRICATION & HYDRAULICS

- ☐ Gearbox (Oil Levels)
- ☐ Hydraulic Oil Level (External Tank)
- ☐ Tractor Hydraulic Oil Level
- ☐ Hydraulic Hoses (Not Kinked Tighten Connections)
- ☐ Front Pump Drive (Assembly Is Tight And Shaft Properly Aligned)

#### MOWER

- ☐ Mower Cutting Height And Level Adjusted
- ☐ Cutting Shaft Bearings Lubricated
- ☐ All Hardware Properly Torqued

#### ATTACHMENTS & INSTALLATION

- ☐ Deflectors Front And Rear
- ☐ Correct Blade Rotation Direction

#### MOWER TO TRACTOR CONNECTIONS

- ☐ A-Frame Pivot & Links
- ☐ Axle Height (Adjusted)
- ☐ Cutting Height (Adjust)
- ☐ Mount Kit-Pre-Operation Check Complete
- ☐ Mower Wing (Adjust Level With The Center)
- ☐ Mower Wing (Check For Proper Raising Operation)
- ☐ Mounting Hardware Properly Torqued

#### SAFETY ITEMS

- ☐ Protective Shields (Operation And Installation)
- ☐ Driveline Clutch (Torque Limiter) (Adjust And Run In)
- ☐ Safety Decals (Installed)
- ☐ Operator's Manual (Supplied)
- ☐ Tractor PTO Shield (Installed)
- ☐ S.M.V. Emblem (Installed If Needed)
- ☐ ADMA Driveline Safety Manual Supplied
- ☐ AEM Mower Safety Manual (Supplied in Canister)
- ☐ AEM Mower Safety Video has been shown to Purchaser

# TABLE OF CONTENTS

<b>SAFETY SECTION.....</b>	<b>1-1</b>
General Safety Instructions and Practices .....	1-2
Decal Location .....	1-13
Decal Description .....	1-15
FEDERAL LAWS AND REGULATIONS .....	1-20
<b>INTRODUCTION SECTION .....</b>	<b>2-1</b>
Equipment Specifications .....	2-3
Attention Owner/Operator .....	2-4
<b>OPERATION SECTION .....</b>	<b>3-1</b>
OPERATOR REQUIREMENTS .....	3-3
TRACTOR REQUIREMENTS .....	3-4
ROPS and Seat Belt .....	3-4
Tractor Safety Devices .....	3-4
Tractor Horsepower .....	3-4
Tractor Hydraulics .....	3-5
Front End Weight .....	3-5
Power Take Off (PTO) .....	3-5
GETTING ON AND OFF THE TRACTOR .....	3-5
Boarding the Tractor .....	3-6
Dismounting the Tractor .....	3-6
STARTING THE TRACTOR .....	3-7
PRE-OPERATION INSPECTION AND SERVICE .....	3-8
Tractor Pre-Operation Inspection/Service .....	3-9
Sickle Bar Pre-Operation Inspection/Service .....	3-9
DRIVING THE TRACTOR AND IMPLEMENT .....	3-13
Starting the Tractor .....	3-14
Brake and Differential Lock Setting .....	3-14
Driving the Tractor and KSB6 .....	3-15
OPERATING THE TRACTOR AND IMPLEMENT .....	3-16
Position Controls .....	3-17
MOTOR CONTROL .....	3-17
KNIFE SPEED .....	3-17
TRACTOR MOWING SPEED .....	3-18
CUTTER BAR BREAK-BACK .....	3-18
Operating the KSB .....	3-19
Shutting Down the KSB .....	3-20
TRACTOR AND KSB STORAGE .....	3-21
TRANSPORTING THE TRACTOR AND IMPLEMENT .....	3-21
Transporting on Public Roadways .....	3-22
Hauling the Tractor and Implement .....	3-25
<b>MAINTENANCE SECTION .....</b>	<b>4-1</b>
LUBRICATION INFORMATION .....	4-2
INITIAL HYDRAULIC SYSTEM CLEANING .....	4-3
RESERVOIR OIL & FILTER MAINTENANCE .....	4-3
CUTTERBAR ADJUSTMENTS .....	4-4
CUTTERBAR ALIGNMENT .....	4-4
GUARD ADJUSTMENT .....	4-4
WEAR PLATE .....	4-5
CLIPS .....	4-5

HYDRAULIC SYSTEM .....	4-7
PUMP & MOTOR .....	4-7
VALVES .....	4-7
KNIFE REPAIR .....	4-7
KNIFE .....	4-7
LEDGER PLATES .....	4-8
Cylinder Rod Maintenance .....	4-8

# **SAFETY SECTION**

Safety Section 1-1



# SAFETY

## General Safety Instructions and Practices

A careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this Implement. This equipment should only be operated by those persons who have read the manual, who are responsible and trained, and who know how to do so responsibly.



The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment.

Practice all usual and customary safe working precautions and above all---remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices.



Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

**Important**

Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

**NOTE:** *Identifies points of particular interest for more efficient and convenient operation or repair.* (SG-1)

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Death or serious injury may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2)



Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3)

**¡ LEA EL INSTRUCTIVO!**



# SAFETY

## DANGER

Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel to operate the Tractor or Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation. (SG-4)

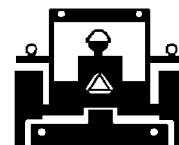


## WARNING

Always maintain the safety signs in good readable condition. If the safety signs are missing, damaged, or unreadable, obtain and install replacement safety signs immediately. (SG-5)

## WARNING

Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)



## WARNING

Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor, particularly during a turnover when the operator could be pinned under the ROPS. (SG-7)

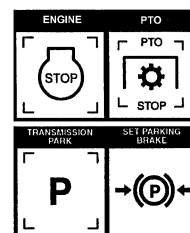


## WARNING

Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

## DANGER

BEFORE leaving the tractor seat, lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



## DANGER

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)



SAFETY

# SAFETY

## SAFETY

### DANGER

Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator's Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11)



### WARNING

Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)



### DANGER

Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)



### DANGER

Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause serious injury or even death. (SG-14)



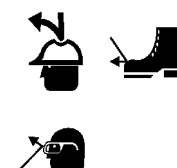
### WARNING

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)



### WARNING

The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items that may be thrown by the equipment. (SG-16)



# SAFETY

## CAUTION

PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Tractors with or without an Implement attached can often be noisy enough to cause permanent hearing loss. We recommend that you always wear hearing protection if the noise in the Operator's position exceeds 80db. Noise over 85db over an extended period of time will cause severe hearing loss. Noise over 90db adjacent to the Operator over an extended period of time will cause permanent or total hearing loss. **NOTE:** *Hearing loss from loud noise [from tractors, chain saws, radios, and other such sources close to the ear] is cumulative over a lifetime without hope of natural recovery.* (SG-17)

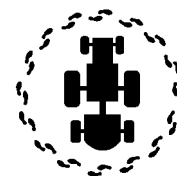


## WARNING

Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. (SG-20)

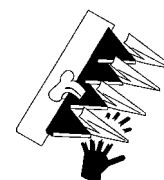
## WARNING

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)



## WARNING

Do not put hands or feet near the cutter bar. Blade contact can result in serious injury. Stay away until all motion has stopped and the mower is securely blocked up. (SSM-1)



SAFETY

# SAFETY

## SAFETY

### **WARNING**

Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.



Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)

### **WARNING**

Always read carefully and comply fully with the manufacturer's instructions when handling oil, solvents, cleansers, and any other chemical agent. (SG-22)



### **DANGER**

Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

### **DANGER**

KEEP AWAY FROM ROTATING ELEMENTS to prevent entanglement and possible serious injury or death. (SG-24)



### **DANGER**

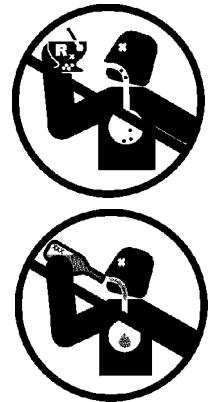
Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Inadvertent contact with controls can cause the Implement to shift or fall crushing themselves or others. (SG-25)



# SAFETY

## **⚠ DANGER**

DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)



## **⚠ DANGER**

Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause serious injury or death. (SG-29)

## **⚠ WARNING**

Mow only in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never mow in darkness or foggy conditions where you cannot clearly see at least 300 feet (90 m) in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these type of items discontinue mowing. (SGM-1)

## **⚠ WARNING**

Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before mowing. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop mowing immediately if blades strike a foreign object. Repair all damage and make certain rotor or blade carrier is balanced before resuming mowing. (SGM-05)



## **⚠ WARNING**

Mow at the speed that you can safely operate and control the tractor and mower. The correct mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 2-5 mph (3-8 kph). Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-07)

## **⚠ DANGER**

Replace bent or broken blades with new blades. NEVER ATTEMPT TO STRAIGHTEN, WELD, OR WELD HARDFACING ON BLADES SINCE THIS WILL LIKELY CRACK OR OTHERWISE DAMAGE THE BLADE WITH SUBSEQUENT FAILURE AND POSSIBLY CAUSE SERIOUS INJURY FROM THROWN BLADES. (SGM-10)

SAFETY

# SAFETY

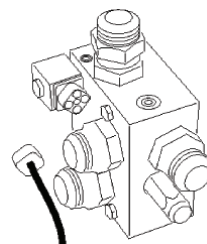
## SAFETY

### **WARNING**

Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Mower Head on the ground or securely supported on blocks or stands, disengage the PTO, and turn off the engine. Push and pull the control Levers or Joystick several times to relieve pressure prior to starting any maintenance or repair work. (SBM-6)

### **DANGER**

Always disconnect the wire leads from the mower valve solenoid before performing service on the tractor or Mower. Use caution when working on the Tractor or Mower. Tractor engine must be stopped before working on Mower or Tractor. The Mower Blades could inadvertently be turned on without warning and cause immediate dismemberment, injury or death (SBM-12)



### **CAUTION**

Do not back up with this implement. Backing could damage the machine or its components. (S3PT-4)

### **WARNING**

Use extreme care when lowering or unfolding the implement's wings. Make sure no bystanders are close by or underneath the wings. Allow ample clearance around the implement when folding or unfolding the wings. Use extreme caution around buildings or overhead power lines. (S3PT-05)

### **DANGER**

There are obvious and hidden potential hazards in the operation of this implement as in all power-driven or pulled equipment. REMEMBER! This machine is often operated in rough terrain conditions that include tall grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area (S3PT-07)

### **DANGER**

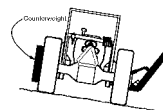
This Implement may be wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, serious injury, or even death. Never allow the Implement to contact obstacles. (S3PT-12)

### **WARNING**

Never interfere with factory-set hydraulic calibrations. Any change in calibration could cause a failure of the equipment and may result in injury. (SBH-13)

### **WARNING**

Maintain adequate tractor stability to prevent lateral instability and possible tip-over which could result in serious bodily injury or even death. Widen the wheel tread and add wheel weights where necessary. Refer to the mounting instructions or call Customer Service if you need assistance with Counterweight Procedure. (SSM-2)



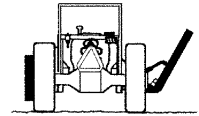
# SAFETY

## **WARNING**

Do not operate Mower if excessive vibration exists. In the case of extreme vibration, shut down the Mower and the Tractor engine and wait until all motion has stopped. Inspect the Mower to determine the source of the vibration. If any Mower blades are missing or damaged replace them immediately. Operating the Mower with excessive vibration can result in component failure and broken objects could be thrown outward. To reduce the possibility of property damage and personal injury, never allow the Mower to be operated with excessive vibration. (SSM-3)

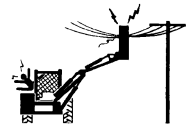
## **WARNING**

Never leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SSM-4)



## **DANGER**

Always keep a careful lookout and use extreme care when working around overhead obstructions. Never allow the mower head or boom within 10 feet of any power line. When working close to overhead power lines consult your electric company for a safe code of operation. (SBM-7)



## **WARNING**

Prolonged operation may cause operator boredom and fatigue affecting safe operation. Take scheduled work breaks to help prevent these potentially impaired operating conditions. Never operate the Implement and Tractor in a fatigued or bored mental state which impairs proper and safe operation. (SG-32)

## **WARNING**

Use extreme caution when getting onto the Implement to perform repairs, maintenance and when removing accumulated material. Only stand on solid flat surfaces to ensure good footing. Use a ladder or raised stand to access high spots which cannot be reached from ground level. Slipping and falling can cause serious injury or death. (SG-33)

## **WARNING**

Avoid contact with hot surfaces including hydraulic oil tanks, pumps, motors, valves and hose connections. Relieve hydraulic pressure before performing maintenance or repairs. Use gloves and eye protection when servicing hot components. Contact with a hot surface or fluid can cause serious injury from burns or scalding. (SG-34)

## **WARNING**

Perform service, repairs and lubrication according to the maintenance section. Ensure the unit is properly lubricated as specified in the lubrication schedule and all bolts and nuts are properly torqued. Failure to properly service, repair and maintain this Implement in good operating condition could cause component failure and possible serious injury or even death. (SG-35)

## **DANGER**

DO NOT operate this Implement on a Tractor that is not properly maintained. Should a mechanical or Tractor control failure occur while operating, immediately shut down the Tractor and perform repairs before resuming operation. Serious injury and possible death could occur from not maintaining this Implement and Tractor in good operating condition. (SG-36)

SAFETY

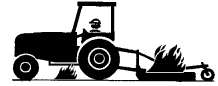
# SAFETY

## DANGER

The rotating parts of this machine have been designed and tested for rugged use. However, the components could fail upon impact with heavy, solid objects such as metal guard rails and concrete structures. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the implement to contact such obstacles. (SGM-4)

## WARNING

Follow these guidelines to reduce the risk of equipment and grass fires while operating, servicing, and repairing the Mower and Tractor:



- Equip the Tractor with a fire extinguisher in an accessible location.
- Do Not operate the Mower on a Tractor with an underframe exhaust.
- Do Not smoke or have an open flame near the Mower and Tractor.
- Do Not drive into burning debris or freshly burnt areas.
- Ensure slip clutches are properly adjusted to prevent excessive slippage and plate heating.
- Never allow clippings or debris to collect near drivelines, slip clutches, and gearboxes. Periodically shut down the Tractor and Mower and clean clippings and collected debris from the mower deck. (SGM-12)

## WARNING

Wear gloves and exercise care when handling blades. Blades are SHARP and can cause lacerations to hands and other parts of the body if not safely handled. (SSM-09)

## WARNING

DO NOT weld or repair rotating mower components. Welds and other repairs may cause severe vibration and/or component failure resulting in part being thrown from the mower causing serious bodily injury. See your Authorized Dealer for proper repairs. (SGM-13)

## DANGER

The Mower is designed for certain mowing applications and is rated to cut up to a specific size vegetation (see Mower Standard Equipment and Specifications). DO NOT use this mower to cut vegetation above the Mower's rated capacity or to cut any type of non-vegetative material. Only operate this Mower on a properly sized and equipped Tractor. Operating this Mower in an application for which it is not designed and/or operating the Mower with the wrong size Tractor can cause Mower component damage and equipment failure resulting in possible serious injury or death. (SGM-14)

## WARNING

Raise the mower head to the transport position and secure with the retaining pin before traveling on public roads and when storing the mower in the upright position. (SSM-05)

## WARNING

DO NOT stand in front of the mower head or perform service while the head is in the break back position. The mower head could suddenly swing forward causing serious bodily injury. Relieve all hydraulic pressure and secure the mower in position before performing maintenance. (SSM-06)

# SAFETY



All Safety Shields, Guards and other safety devices including (but not limited to) Deflectors, Steel Guards and Gearbox Shields must be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or contact. (SSM-07)



Only replace the spring assembly as a complete unit. DO NOT attempt to remove or repair the spring outside the assembly. Only allow a properly trained mechanic to disassemble the spring assembly. Spring tension when released could cause serious bodily injury. (SSM-08)



Do not operate the implement while wearing loose fitting clothing. Entanglement of the clothing with the rotating elements can result in serious injury or even death. Stay clear of all rotating elements at all times. (SSP-03)



**DO NOT** allow any person under a folded wing unless wing is securely locked up or supported. **DO NOT** approach the Implement unless the Tractor is turned off and all motion has ceased. Never work under the frame work, or any lifted component unless the implement is securely supported or blocked up. A sudden or inadvertent fall by any of these components could cause serious injury or even death. (STI-03)



## WARNING

Cancer and Reproductive Harm [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

SAFETY



# SAFETY

## PARTS INFORMATION

Terrain King mowers use balanced and matched system components for blade carriers, blades, cuttershafts, knives, knife hangers, rollers, drivetrain components, and bearings. These parts are made and tested to Terrain King specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce mower performance, void mower warranties, and present a safety hazard. Use genuine Terrain King mower parts for economy and safety. (SPTK-1)

**SEE YOUR TERRAIN KING DEALER**

Operator's & Parts Manuals



[www.algqr.com/kpm](http://www.algqr.com/kpm)

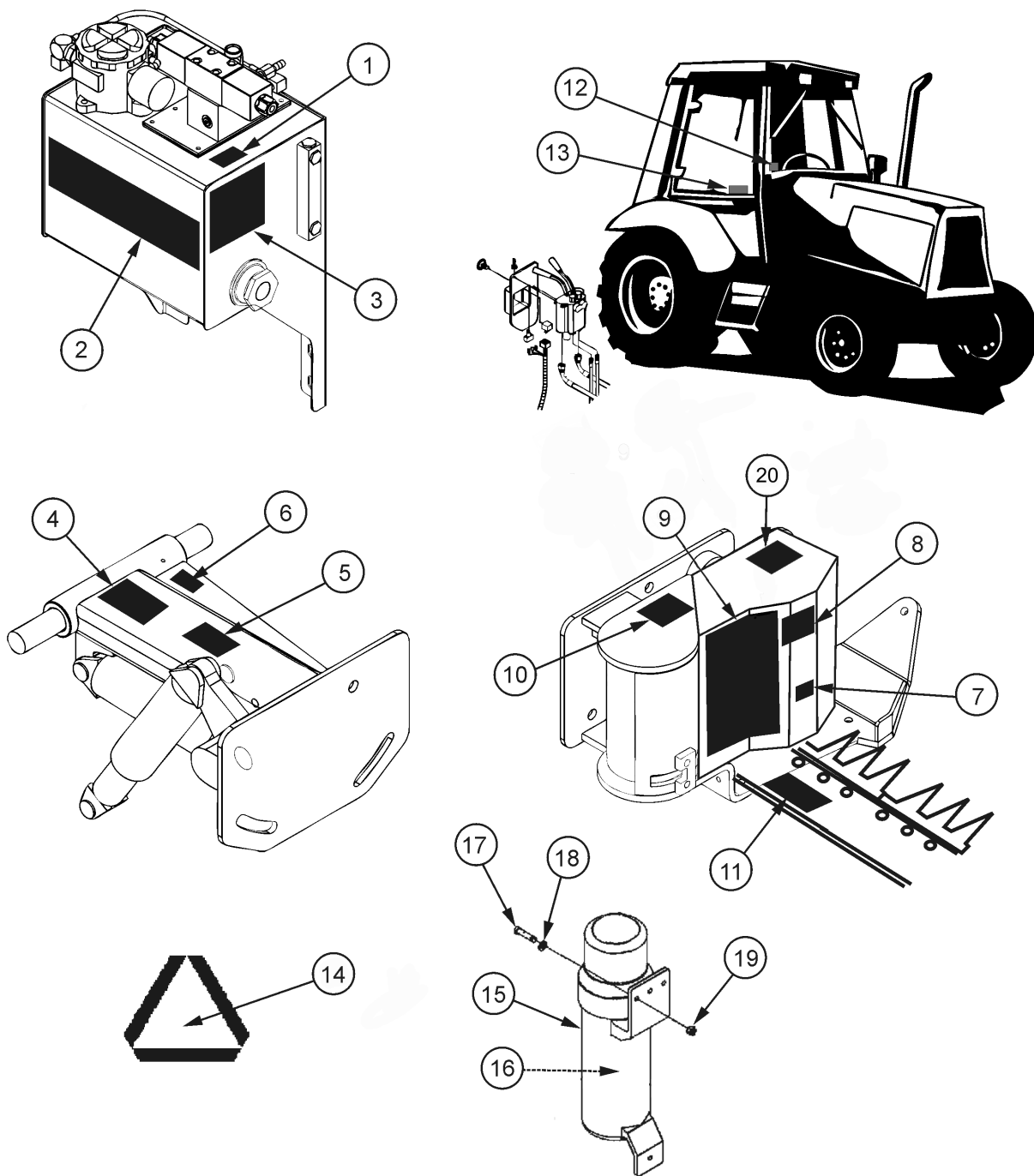
In addition to the design and configuration of this Implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and Equipment Manuals. Pay close attention to the Safety Signs affixed to the Tractor and Equipment. (SG-18)

SAFETY

# SAFETY

## Decal Location

**NOTE:** Terrain King supplies safety decals on this product to promote safe operation. Damage to the decals may occur while in shipping, use, or reconditioning. Terrain King cares about the safety of its customers, operators, and bystanders, and will replace the safety decals on this product in the field, free of charge (Some shipping and handling charges may apply). Contact your Terrain King dealer to order replacement decals.



SAFETY

DL-S-0004

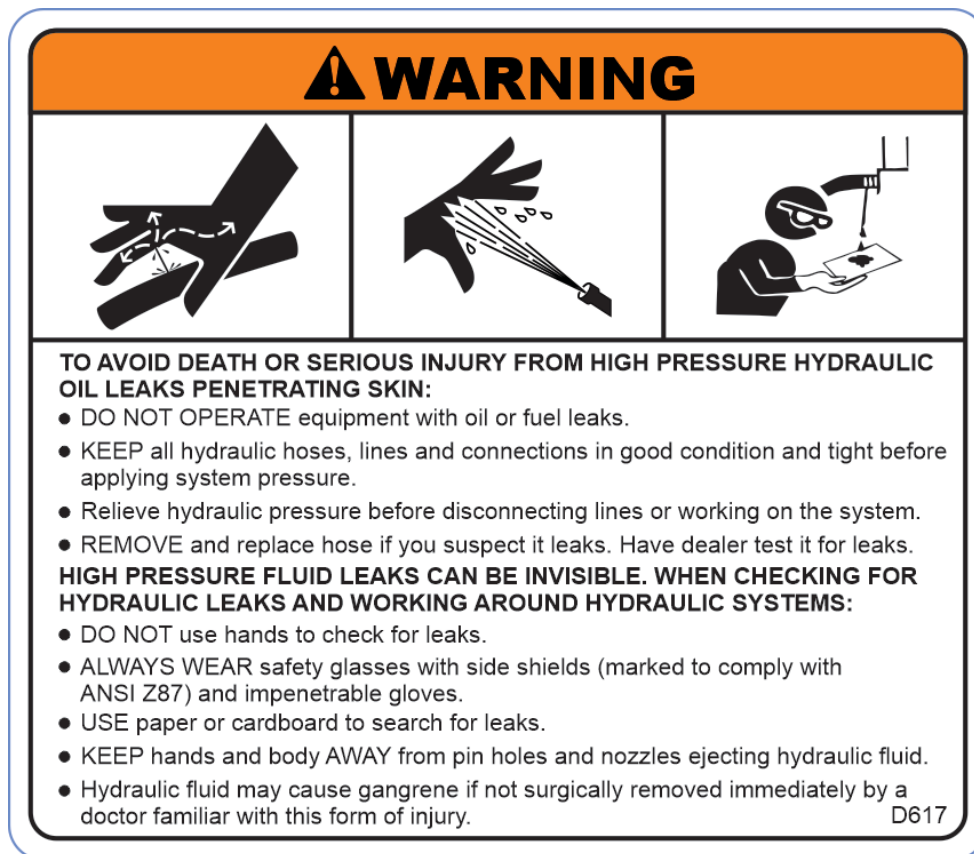
# SAFETY

## SAFETY

ITEM	PART NO.	QTY.	TYPE	DESCRIPTION
1.	D877	1	IMPORTANT	Service with Universal Hyd Oil
2.	30032122065	1	NAME	KSB5
	30002993671	1	NAME	KSB6
3.	D617	1	WARNING	Hydraulic Oil Leak
4.	D628	1	DANGER	Crushing Hazard & Pinch Points
5.	D733	1	WARNING	Not A Step
6.	NFS	1	SER PLT	Serial Number Plate
7.	D726	1	INSTRUCT	Grease Fitting Inside
8.	D734	1	INSTRUCT	Lubrication Chart
9.	D881	1	DANGER	Run Over Hazard
10.	D731	1	DANGER	Amputation Hazard
11.	D725	1	IMPORTANT	Blade Clearance
12.	D732	1	IMPORTANT	Actuate Control Handle to Reset
13.	D635	1	WARNING	Operate Machine at 540 RPM
14.	03200347	1	REFLECTOR	SMV Symbol
15.	00776031	1	_____	Canister, Parts Manual
16.	37002993751C	1	_____	KSB5/KSB6 Operator's Manual
17.	10058000	3	_____	Bolt
18.	00017000	3	_____	Flatwasher
19.	02959924	3	_____	Locknut
20.	D678	1	WARNING	Use Genuine Terrain King Parts

# SAFETY

## Decal Description



SAFETY

# SAFETY

## SAFETY

### **DANGER**

#### TO AVOID DEATH OR SERIOUS INJURY:

- READ AND UNDERSTAND the provided Operator's Manuals, safety signs and information decals for tractor and implement before operating equipment.
- CONTACT DEALER immediately if you do not have manuals.
- CONTACT DEALER to explain any instructions not fully understood.
- KNOW HOW to stop tractor and equipment quickly for an emergency.
- ALWAYS WEAR safety glasses.
- WEAR hard hat, safety shoes and gloves for protection when operating equipment.



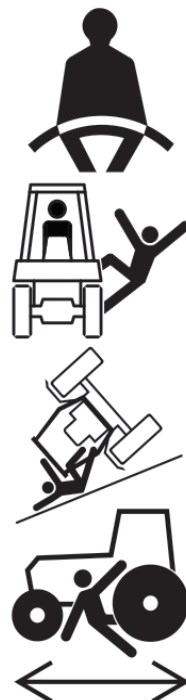
D881-1

### **DANGER**

#### Run Over Hazard

#### TO AVOID DEATH OR SERIOUS INJURY:


- ALWAYS USE Roll Over Protective Structure ("ROPS") including ROLL BAR and SEAT BELT equipped tractors for mowing operations.
- ONLY START Tractor while seated in the operator's seat.
- DO NOT MOUNT or DISMOUNT tractor in motion.
- NEVER ALLOW riders on tractor or implement.
- NEVER ALLOW children to operate or ride on tractor or implement.
- KEEP BYSTANDERS CLEAR of area before moving tractor or implement.
- STOP ENGINE AND PTO, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from tractor.



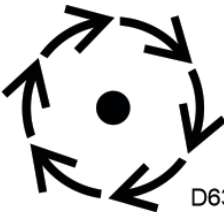
D881-2



# SAFETY

<b>! DANGER</b>	
	<b>AMPUTATION HAZARD</b> <b>TO AVOID SERIOUS INJURY FROM BLADE CONTACT:</b> <ul style="list-style-type: none"><li>• Keep away until all motion has stopped.</li><li>• Keep fingers clear of cutterbar when folding cutterbar into transport position.</li><li>• KEEP all persons AWAY from sickle blades.</li></ul>
D731	

<b>! DANGER</b>	
<b>CRUSHING HAZARD AND PINCH POINTS</b>	
	
<b>TO AVOID DEATH OR SERIOUS INJURY:</b> <ul style="list-style-type: none"><li>• KEEP AWAY from moving machinery parts that can pinch, crush or fall.</li></ul>	
	D628

<b>! WARNING</b>	
<p>OPERATE THIS MACHINE AT <b>540 RPM</b> TRACTOR PTO SPEED ONLY. Overspeeding PTO may cause component failure resulting in bodily injury. TRACTOR PTO ROTATION: CLOCKWISE</p>	
	D635

# SAFETY

## SAFETY

### **WARNING**

#### TO AVOID DEATH OR SERIOUS INJURY:

- ONLY use genuine TERRAIN KING replacement parts, which have been validated and tested to use on Terrain King equipment by the manufacturer.
- The equipment manufacturer cannot verify the material or structural integrity of third-party supplied non-genuine replacement parts.
- Using non-genuine parts can result in the part failing, creating hazardous conditions for operator and bystanders.

Contact local dealer or TERRAIN KING about repair parts at:

1502 E. Walnut, Seguin, TX 78155.

Customer Service: 800-882-5756.

Email: boom@terrainingking.com



[www.algqr.com/kpm](http://www.algqr.com/kpm)

### **WARNING**

**Cancer and Reproductive Harm**

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## IMPORTANT

**BE AWARE  
BE ALERT**

**BE TRAINED**

**BE ALIVE Before Operating this Mower**



To prevent serious injury to yourself and/or bystanders, be trained in Safe Mowing Practices. Alamo Group Companies as well as AEM and FEMA provide training material that is critical for your Safety and the Safety of others when operating this equipment. Make these Safety Procedures an important part of every workday. Read and understand the Operator's Manual.

[www.algqr.com/kbv](http://www.algqr.com/kbv)

Do not let untrained individuals operate this equipment. Contact your Dealer, AEM ([www.aem.org](http://www.aem.org)), FEMA (314-878-2304, [www.FarmEquip.org](http://www.FarmEquip.org)), or Alamo Group ([www.Alamo-Group.com](http://www.Alamo-Group.com)) for information on training material or courses that provide training in Safer Operating Practices for Mowers.

D678

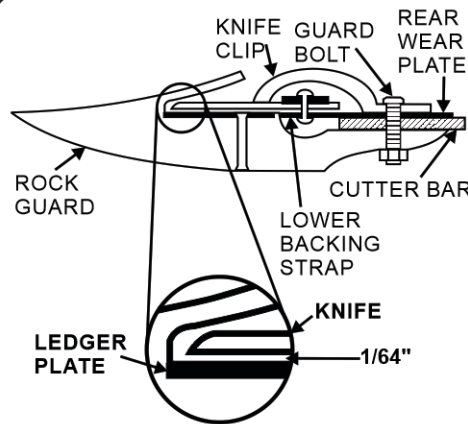
# SAFETY

SAFETY

## IMPORTANT

Service hydraulic system with universal tractor hydraulic oil. Part number 30002966307.

D877



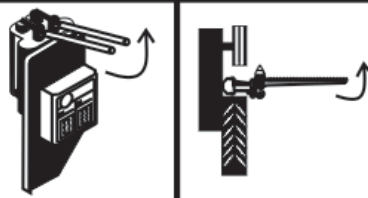
## IMPORTANT

**To avoid poor cutting performance:**

- Inspect knife to ledger plate clearance daily. Maintain 1/64" clearance.
- Refer to Operator's Manual for service instructions.

D725

## IMPORTANT



Actuate control handle to reset cutterhead.

D732

# SAFETY

## FEDERAL LAWS AND REGULATIONS

This section is intended to explain in broad terms the concept and effect of federal laws and regulations concerning employer and employee equipment operators. This section is not intended as a legal interpretation of the law and should not be considered as such.

### Employer-Employee Operator Regulations

U.S. Public Law 91-596 (The Williams-Steiger Occupational and Health Act of 1970) OSHA

#### This Act Seeks:

"...to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources..."

#### DUTIES

Sec. 5 (a) Each employer-

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.
- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations and orders issued pursuant to this Act which are applicable to his own actions and conduct.

### OSHA Training Requirements

**Title 29, Code of Federal Regulations Part 1928.57(a)(6).** [www.osha.gov](http://www.osha.gov)

Operator instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee who operates an agricultural tractor and implements in the safe operating practices and servicing of equipment with which they are or will be involved, and of any other practices dictated by the work environment.

Keep all guards in place when the machine is in operation;

Permit no riders on equipment

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain the equipment.

Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

### Employer Responsibilities:

To ensure employee safety during Tractor and Implement operation, it is the employer's responsibility to:

1. Train the employee in the proper and safe operation of the Tractor and Implement.
2. Require that the employee read and fully understand the Tractor and Implement Operator's manual.
3. Permit only qualified and properly trained employees to operate the Tractor and Implement.
4. Maintain the Tractor and Implement in a safe operational condition and maintain all shields and guards on the equipment.
5. Ensure the Tractor is equipped with a functional ROPS and seat belt and require that the employee operator securely fasten the safety belt and operate with the ROPS in the raised position at all times.
6. Forbid the employee operator to carry additional riders on the Tractor or Implement.
7. Provide the required tools to maintain the Tractor and Implement in a good safe working condition and provide the necessary support devices to secure the equipment safely while performing repairs and service.
8. Require that the employee operator stop operation if bystanders or passersby come within 300 feet.

### Child Labor Under 16 Years of Age

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102.)

# INTRODUCTION SECTION

Introduction Section 2-1

# INTRODUCTION

## INTRODUCTION

This KSB Sicklebar Mower is designed with care and built with quality materials by skilled workers. Proper assembly, maintenance, and operating practices, as described in this manual, will help the owner/operator get years of satisfactory service from the machine.

The purpose of this manual is to familiarize, instruct, and train. The Assembly manual instructs the owner/operator in the correct assembly of the Mower using standard and optional equipment. The Parts Listing section is designed to familiarize the owner/operator with replaceable parts on the Mower. This section provides exploded assembly drawings of each mower component illustrating each piece and the corresponding part number.

Careful use and timely service saves extensive repairs and costly downtime losses. The Operation and Maintenance Sections of the manual train the owner/operator how to work the Mower correctly and attend to appropriate maintenance. The Trouble Shooting Guide helps diagnose difficulties with mower and offers solution to the problems.

Safety is of primary importance to the owner/operator and to the manufacturer. The first section of this manual includes a list of Safety Messages, that, if followed, will help protect the operator and bystanders from injury or death. Many of the Safety Messages will be repeated throughout the manual. The owner/operator/dealer should know these Safety Messages before assembly and be aware of the hazards of operating this mower during assembly, use, and maintenance. The Safety Alert Symbol combined with a Signal Word, as seen below, is intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this machine.



Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.



Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.



Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

# INTRODUCTION



INTR-SB-0001

INTRODUCTION

The simplistic, time-tested design of the KSB Sickelbar offers its users a fast, efficient, cost-effective method of vegetation maintenance. Designed for tractors with smaller horsepower engines, it is both safe and reliable. Users can depend on the KSB for high production due to faster cutting as well as less maintenance than any other industrial mower on the market today.

The Sickel Bar cutter bar features a breakaway system allowing the unit to hinge when obstructed. Also featured is a planetary drive system which allows for smoother operation and cleaner cutting. An efficient motor, decreased in size and weight, helps to increase speed control.

With a two-section front pump, the updated hydraulic system allows the unit to run cooler by eliminating heat, thus running more efficiently. This translates into more cutting power and less machine maintenance. The KSB's proven blade design allows for precision cutting. Built-in rock guards help to minimize blade damage.

Literature Page



[www.algqr.com/kle](http://www.algqr.com/kle)

## Equipment Specifications

General Specs.	KSB5	KSB6	Hydraulics
Cutting Width	60"	72"	Front Mounted Tandem Style Pump Hydraulic Control Valve - 2 Spool, Open Center Hydraulic Reservoir - 4.5 Gallon Capacity
Cutting Capacity (max)	1/2" Grass & Light Brush		
Ability to Cut 90° Up to 75° Down			
Skid Shoe	3/16" (Replaceable)		
Cutterbar Specs.			Safety Breakaway
25 Serrated Knife Sections			Hydraulic Breakaway System
Heavy Duty Rock Guards			Breakaway Swing - 90° from horizontal position
Full Floating Cutterbar			

# INTRODUCTION

## INTRODUCTION

### Attention Owner/Operator

BEFORE OPERATING THIS MACHINE:

1. Carefully read the Operator's Manual, completely understand the Safety Messages and instructions, and know how to operate correctly both the tractor and implement.
2. Fill out the Warranty Card in full. Be sure to answer all questions, including the Serial Number of the implement. Mail within 30 days of delivery date of this implement.

**NOTE:** Warranties are honored only if completed "Owner Registration and Warranty" forms are received by Terrain King within thirty days of delivery of the implement.

3. Record the Model and Serial Numbers on the Warranty page at the front of the Operator's Manual. Keep this as part of the permanent maintenance file for the implement.

**WARNING**

**TO AVOID DEATH OR SERIOUS INJURY:**

- ONLY use genuine TERRAIN KING replacement parts, which have been validated and tested to use on Terrain King equipment by the manufacturer.
- The equipment manufacturer cannot verify the material or structural integrity of third-party supplied non-genuine replacement parts.
- Using non-genuine parts can result in the part failing, creating hazardous conditions for operator and bystanders.

Contact local dealer or TERRAIN KING about repair parts at:  
1502 E. Walnut, Seguin, TX 78155.  
Customer Service: 800-882-5756.  
Email: boom@terraining.com



**WARNING**

**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**IMPORTANT**

**BE AWARE  
BE ALERT  
BE ALIVE**

**BE TRAINED**  
**Before Operating this Mower**



To prevent serious injury to yourself and/or bystanders, be trained in Safe Mowing Practices. Alamo Group Companies as well as AEM and FEMA provide training material that is critical for your Safety and the Safety of others when operating this equipment. Make these Safety Procedures an important part of every workday. Read and understand the Operator's Manual.

Do not let untrained individuals operate this equipment. Contact your Dealer, AEM ([www.aem.org](http://www.aem.org)), FEMA (314-878-2304, [www.FarmEquip.org](http://www.FarmEquip.org)), or Alamo Group ([www.Alamo-Group.com](http://www.Alamo-Group.com)) for information on training material or courses that provide training in Safer Operating Practices for Mowers.

D678



# OPERATION SECTION

Operation Section 3-1

# OPERATION

## TERRAIN KING KSB5 and KSB6 OPERATING INSTRUCTIONS

Terrain King KSB5 and KSB6 are manufactured with quality material by skilled workers. The Sickle Bar is designed for cutting grass and weeds up to 1/2" diameter such as in rights-of-way and roadsides. The KSB5 and KSB6 are equipped with safety warning decals, protective guards, shields, and other safety features to provide operator and passerby protection, however, no shielding is 100% accurate. ALL safety equipment and safety warning decals must be maintained on the unit in good operational condition at all times.

It is the operator's responsibility to be knowledgeable of all potential operating hazards and to take every reasonable precaution to ensure oneself, others, animals, and property are not injured or damaged by the unit, tractor or a thrown object. Do not operate the unit if bystanders, passersby, pets or livestock are within 300 feet of the unit.

This section of the Operator's Manual is designed to familiarize, instruct, and educate operators to the safe and proper use of the Sickle Bar. Pictures contained in this section are intended to be used as a visual aid to assist in explaining the operation of a Sickle Bar and are not specific to a KSB5 and KSB6. Some pictures may show shields removed to enhance visual clarity. NEVER operate the unit without all safety equipment in place and in good operational condition. The operator must be familiar with the unit and tractor operation and all safety practices before beginning operation. Proper operation, as detailed in this manual, will help ensure years of safe and satisfactory use of the Sickle Bar.

**READ AND UNDERSTAND THE ENTIRE OPERATING INSTRUCTIONS AND SAFETY SECTION OF THIS MANUAL AND THE TRACTOR MANUAL BEFORE ATTEMPTING TO USE THE TRACTOR AND IMPLEMENT.** If you do not understand any of the instructions, contact your nearest authorized dealer for a full explanation. Pay close attention to all safety signs and safety messages contained in this manual and those affixed to the implement and tractor. *OPS-U- 0001*

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Death or serious injury may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2)



Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3)

**¡ LEA EL INSTRUCTIVO!**



# OPERATION

## 1. OPERATOR REQUIREMENTS

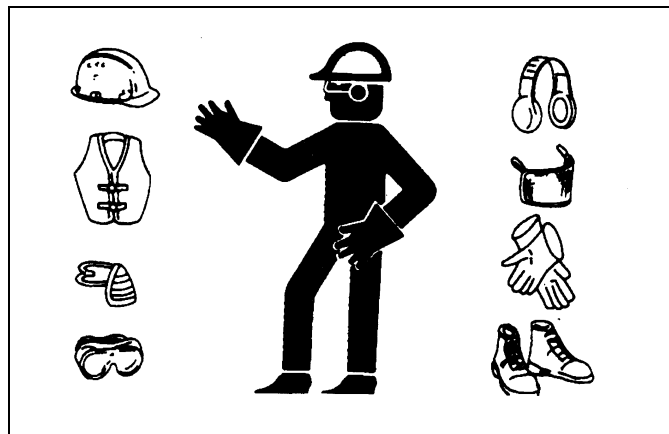
Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and tractor Operator's Manuals and is experienced in implement and tractor operation and all associated safety practices. In addition to the safety messages contained in this manual, safety signs are affixed to the implement and tractor. If any part of the operation and safe use of this equipment is not completely understood, consult an authorized dealer for a complete explanation.

If the operator cannot read the manuals for themselves or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manuals, safety practices, and operating instructions to the operator.

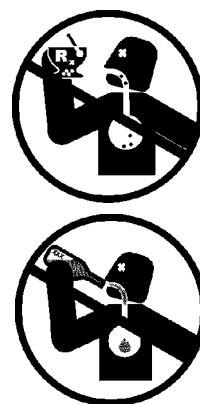
Safe operation of equipment requires that the operator wear approved Personal Protective Equipment (PPE) for the job conditions when attaching, operating, servicing, and repairing the equipment. PPE is designed to provide operator protection and includes the following safety wear:

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- Always Wear Safety Glasses with Side Shields (marked with ANSI Z87)
- Hard Hat
- Steel Toe Safety Footwear
- Gloves
- Hearing Protection
- Close Fitting Clothing
- Respirator or Filter Mask (depends on operating conditions) OPS-U- 0002



DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)



# OPERATION

## **2.TRACTOR REQUIREMENTS**

The tractor used to operate the mower must have the power capacity to lift, pull, and operate the Power Take Off (PTO) at the mower's rated speed while traveling at a ground speed between 2 and 5 MPH. Operating the mower with a tractor that does not meet the following requirements may cause tractor or mower damage and be a potential danger to the operator and passersby.

### **Tractor Requirements and Capabilities**

- ASABE approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Tractor Safety Devices ..... Slow Moving Vehicle (SMV) emblem, lighting,
- Tractor Horsepower:
  - Minimum ..... 25 HP
- Front End Weights..... As needed to maintain 20% weight on front axle
- Power Take Off..... 540 RPM 6-spline or 1000 RPM 21-spline shaft

### **2.1 ROPS and Seat Belt**

The tractor must be equipped with a Roll-Over-Protective-Structure (ROPS) (tractor cab or roll-bar) and seat belt to protect the operator from falling off the tractor, especially during a roll over where the driver could be crushed and killed. Only operate the tractor with the ROPS in the raised position and seat belt fastened. Tractor models not equipped with a ROPS and seat belt should have these life saving features installed by an authorized dealer. *OPS-U- 0003*



Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor, particularly during a turnover when the operator could be pinned under the ROPS. (SG-7)



### **2.2 Tractor Safety Devices**

If transporting or operating the tractor and implement near a public roadway, the tractor must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem which are clearly visible from the rear of the unit. Lights and a SMV emblem must be equipped directly on implements if the visibility of the tractor warning signals are obscured.

Maintain all manufacturer equipped safety shields and guards. Always replace shields and guards that were removed for access to connect, service, or repair the tractor or implement. Never operate the tractor PTO with the PTO master shield missing or in the raised position. *OPS-U- 0004*

### **2.3 Tractor Horsepower**

The power required to operate a mower is determined by the tractor PTO horsepower. For most mowing conditions, the KSB5 and KSB6 mower requires a tractor with at least 25 HP. Operating the mower with a tractor that does not have adequate power may damage the tractor engine. Exceeding 25 HP may cause mower damage by overpowering the unit in heavy cutting conditions.

# OPERATION

## **2.4 Tractor Hydraulics**

The Switch Bar is controlled by two levers from the tractor cab. There are two cylinders on the unit one is the "tilt" and "Lift" cylinders. The tilt is used in conjunction with the tilt control lever to control the Up, Lock, Down, or float position. The lift cylinder is used in conjunction with the lift control lever to control the Up, Lock, or Down position. The hydraulic motor is coupled to the tractors cutter drive to give power to the KSB5 and KSB6 in conjunction with hydraulic circuit to supply full system flow.

### **⚠ WARNING**

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)



## **2.5 Front End Weight**

A minimum of 20% total tractor weight must be maintained on the tractor front end at all times. Front end weight is critical to maintain steering control and to prevent the tractor from rearing up while driving. If the front end is too light, add weight until a minimum of 20% total weight is reached on the front tires. Front weights and weight carriers can be purchased through an authorized tractor dealership. OPS-U-0005

## **2.6 Power Take Off (PTO)**

Depending on the unit, the mower is designed to operate at a PTO speed of 540 or 1000 RPM. Most tractors operate at either 540, or a combination of 540 and 1000 RPM PTO speeds. The operating speed of the mower and tractor can be determined by the number of splines on the driveline yoke and PTO output shaft. Those operating at 540 RPM will have a 6-spline shaft and those operating at 1000 RPM will have a 21-spline shaft or a 1-3/4" 20 spline shaft. Refer to the tractor owner's manual for instructions to change PTO speeds on models that operate at more than one speed.

If operating an older model tractor where the tractor's transmission and PTO utilize one master clutch, an over-running clutch must be used between the PTO output shaft and the driveline of the mower. An authorized tractor dealer can provide the over-running clutch and its installation if needed. OPS-U- 0006

## **3.GETTING ON AND OFF THE TRACTOR**

Before getting onto the tractor, the operator must read and completely understand the implement and tractor operator manuals. If any part of either manual is not completely understood, consult an authorized dealer for a complete explanation. OPS-U-0007

# OPERATION

## OPERATION



### WARNING

Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)



### 3.1 Boarding the Tractor

Use both hands and equipped handrails and steps for support when boarding the tractor. Never use control levers for support when mounting the tractor. Seat yourself in the operator's seat and secure the seat belt around you.

Never allow passengers to ride on the tractor or attached equipment. Riders can easily fall off and be seriously injured or killed from falling off and being ran over. It is the operator's responsibility to forbid all extra riders at all times. OPS-U- 0008



### DANGER

Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator's Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11)



### DANGER

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)



### WARNING

Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)



### 3.2 Dismounting the Tractor

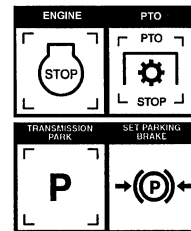
Before dismounting, park the tractor and implement on a reasonably level surface, apply the parking brake, idle the engine down, disengage the PTO, and lower the implement to the ground. Shut down the tractor engine according to the operator's manual, remove the key, and wait for all motion to completely stop. Never leave the seat until the tractor, its engine and all moving parts have come to a complete stop.

Use hand rails and steps when exiting the tractor. Be careful of your step and use extra caution when mud, ice, snow or other matter has accumulated on the steps or hand rails. Use all handrails and steps for support and never rush or jump off the tractor. OPS-U- 0009

# OPERATION



BEFORE leaving the tractor seat, lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



## 4.STARTING THE TRACTOR

The operator must have a complete understanding of the placement, function, and operational use of all tractor controls before starting the tractor. Review the tractor operator's manual and consult an authorized dealer for tractor operation instructions if needed.

Essential Tractor Controls:

- Locate the light control switch.
- Locate the engine shut off control.
- Locate the brake pedals and the clutch.
- Locate the PTO control.
- Locate the 3-point hitch control lever.
- Locate the hydraulic remote control levers.

Before starting the tractor ensure the following:

- Conduct all pre-start operation inspection and service according to the tractor operator's manual.
- Make sure all guards, shields, and other safety devices are securely in place.
- The parking brake is on.
- The PTO control lever is disengaged.
- The 3-point hitch control lever is in the lowered position.
- The hydraulic remote control levers are in the neutral position.
- The tractor transmission levers are in park or neutral.

Refer to the tractor owner's manual for tractor starting procedures. Only start the tractor while seated and belted in the tractor operator's seat. Never bypass the ignition switch by short circuiting the starter solenoid. After the tractor engine is running, avoid accidental contact with the tractor transmission to prevent sudden and unexpected tractor movement. OPS-U-0028



Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)



Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)



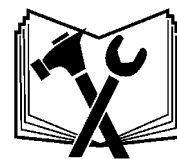
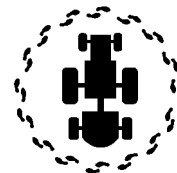
# OPERATION

## 5. PRE-OPERATION INSPECTION AND SERVICE

Before each use, a pre-operation inspection and service of the implement and tractor must be performed. This includes routine maintenance and scheduled lubrication, inspecting that all safety devices are equipped and functional, and performing needed repairs. DO NOT operate the unit if the pre-operation inspection reveals any condition affecting safe operation. Perform repairs and replacement of damaged and missing parts as soon as noticed. By performing a thorough pre-operation inspection and service, valuable down time and repair cost can be avoided. OPS-U-0029

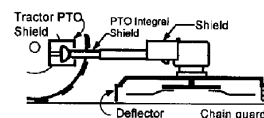
### **WARNING**

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)



### **DANGER**

All Safety Shields, Guards and Safety devices including (but not limited to) - the Deflectors, Chain Guards, Steel Guards, Gearbox Shields, PTO integral shields, and Retractable Door Shields should be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SGM-3)





# OPERATION

## **5.1 Tractor Pre-Operation Inspection/Service**

Refer to the tractor operator's manual to ensure a complete pre-operation inspection and scheduled service is performed according to the manufacturers recommendations. The following are some of the items that require daily service and inspection:

- Tire condition/air pressure
- Wheel lug bolts
- Steering linkage
- PTO shield
- SMV sign is clean and visible
- Tractor's lights are clean and functional
- Tractor Seat belt is in good condition
- Tractor ROPS is in good condition
- ROPS is in the raised position
- No tractor oil leaks
- Radiator free of debris
- Engine oil level and condition
- Engine coolant level and condition
- Power brake fluid level
- Power steering fluid level
- Fuel condition and level
- Sufficient lubrication at all lube points
- Air filter condition OPS-U-0030



## **5.2 Sickle Bar Pre-Operation Inspection/Service**

Before each Sickle Bar use, a complete inspection and service is required to ensure the Sickle Bar is in a good and safe working condition. Damaged and/or broken parts should be repaired and/or replaced immediately. To ensure the Sickle Bar is ready for operation, conduct the following. OPS-SB-0001



Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)



# OPERATION

## OPERATION

The operator's manual and safety signs affixed on the unit contain important instructions on the safe and proper use of the equipment. Maintain these important safety features on the implement in good condition to ensure the information is available to the operator at all times.

- Ensure the manual canister is secured to the equipment with the operator's manual inside.
- Ensure all safety signs are in place and legible. Replace missing, damaged, and illegible decals. *OPS-U- 0011*



### FRAME ASSEMBLY

- Inspect condition of mounting frame weldment.
- Inspect condition of Carriage Arm frame.
- Ensure all bolts and screws are in position and are properly torqued.
- Ensure all pins are in place and fastened with screws.
- Ensure frame is properly mounted to tractor and hardware is properly installed and tightened. *OPS-SB- 0002\_A*



Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Mower Head on the ground or securely supported on blocks or stands, disengage the PTO, and turn off the engine. Push and pull the control Levers or Joystick several times to relieve pressure prior to starting any maintenance or repair work. (SBM-6)



Never leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SBM-4)



# OPERATION

## SICKLE BAR ASSEMBLY

- Inspect condition of Serrated Knives.
- Inspect condition of Sickle Bar knife guards.
- Ensure all bolts and screws are in position and are properly torqued.
- Ensure all knife clips are in place and fastened with screws.
- Ensure Sickle Bar is properly mounted to frame and tractor and hardware is properly installed and tightened. OPS-SB- 0003\_A



Ops-2013

### **WARNING**

Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. (SG-20)

## HYDRAULIC LINE INSPECTION

- Check for hydraulic leaks along hoses, cylinders and fittings. **IMPORTANT:** DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the valve weldment.
- Ensure fitting is properly connected  
OPS-SB- 0004\_A



Hydraulic Hoses

Ops-2014

### **WARNING**

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)



# OPERATION

## OPERATION

### HYDRAULIC PUMP/OIL RESERVOIR

- Check oil reservoir level and oil condition. (Add specific type oil if low)
- Change hydraulic oil filter and hydraulic oil according to maintenance schedule.
- Ensure there are no oil leaks and fitting are properly connected
- Inspect overall condition of hydraulic pump.
- Inspect pump drive shaft.



The oil reservoir has a filter condition gauge located on the filter housing. The filter will show in the red arc when the oil filter needs changing or when the oil temperature is below 100 degrees F. The oil filter should be changed after every 500 hours of operation or when the gauge shows in the red arc when the oil temperature is above 100 degrees F. When changing the filter, also replace the breather filter element located under the black cap. OPS-SB- 0005\_A

#### **WARNING**

Attention: Oil Filler Cap is also the Pressure Relief Cap.

Remove cap slowly to relieve pressure before removing cap completely. Stay clear to prevent being scalded with hot oil that may spray out of the tank that is still pressurized and may cause serious injury to eyes, face, and exposed skin. (Ops-0001-MISC)

#### **WARNING**

Avoid contact with hot surfaces including hydraulic oil tanks, pumps, motors, valves and hose connections. Relieve hydraulic pressure before performing maintenance or repairs. Use gloves and eye protection when servicing hot components. Contact with a hot surface or fluid can cause serious injury from burns or scalding. (SG-34)

# OPERATION

## OPERATION

### 6.DRIVING THE TRACTOR AND IMPLEMENT

Safe tractor transport requires the operator possess a thorough knowledge of the model being operated and precautions to take while driving with an attached implement. Ensure the tractor has the capacity to handle the weight of the implement and the tractor operating controls are set for safe transport. To ensure safety while driving the tractor with an attached implement, review the following. OPS-U- 0012



Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel to operate the Tractor or Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation. (SG-4)



Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)





# OPERATION

## 6.1 Starting the Tractor

The procedure to start the tractor is model specific. Refer to the tractor operator's manual for starting procedures for your particular tractor. Consult an authorized dealer if the starting procedure is unclear. Ensure the 3-point control lever is in the lowered position and the PTO is disengaged before starting the tractor. OPS-SB-0007

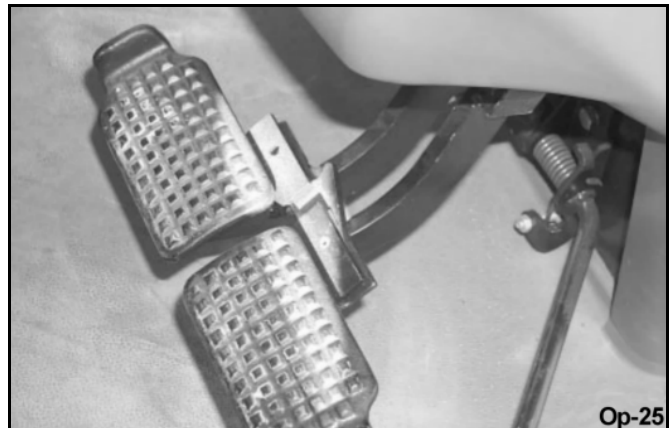


Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

## 6.2 Brake and Differential Lock Setting

Make sure the tractor brakes are in good operating condition. Tractor brakes can be set to operate independently allowing single rear wheel braking action or locked together to provide simultaneous rear wheel braking. FOR MOST DRIVING AND OPERATING CONDITIONS, THE BRAKE PEDALS SHOULD BE LOCKED TOGETHER TO PROVIDE THE MOST EFFECTIVE BRAKING ACTION.

Always disengage the tractor differential lock when turning. When engaged the differential lock will prevent or limit the tractor from turning. During normal conditions, locking the differential provides no benefit and should not be used. OPS-U- 0013



Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases; use extreme care and reduce your speed in these conditions. When operating in traffic, always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy.

# OPERATION

## 6.3 Driving the Tractor and KSB6

Start off driving at a slow speed and gradually increase your speed while maintaining complete control of the tractor and mower. Moving slowly at first will also prevent the tractor from rearing up and loss of steering control. The tractor should never be operated at speeds that cannot be safely handled or which will prevent the operator from stopping quickly during an emergency. If the power steering or engine ceases operating, stop the tractor immediately as the tractor will be difficult to control.

Perform turns with the tractor and implement at slow speeds to determine how the tractor with an attached mower handles a turn. Determine the safe speed to maintain proper control of the tractor when making turns. When turning with an attached implement, the overall working width of the unit is increased. Allow additional clearance for the implement when turning.

To avoid overturns, drive the tractor with care and at safe speeds, especially when operating over rough ground, crossing ditches or slopes, and turning corners. Tractor wheel tread spacing should be increased when working on inclines or rough ground to reduce the possibility of tipping.

Triumph mowers will cut neat, square corners. It is seldom necessary to raise the cutterbar at corners. Turn quickly when near the end of cut using brake to pivot right-hand wheel of tractor when making turns to the right. When turning corners to the left, run tractor in low gear. The cutterbar swings around faster when turning in this direction and increases the possibility of striking an unnoticed obstacle.

When mowing a ditch, the tip of the cutting bar is in the ditch. When you want to come out, be sure to turn out of the ditch to allow the cutterbar to exit the ditch.

Use extreme caution when operating on steep slopes. Keep the tractor in a low gear when going downhill. DO NOT coast or free-wheel downhill.

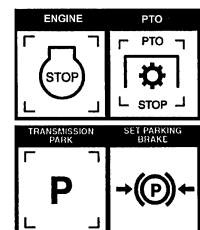
OPS-SB-0006\_A



OPERATION



BEFORE leaving the tractor seat, lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



# OPERATION

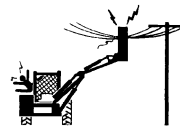
## **WARNING**

Never leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SBM-4)



## **DANGER**

Always keep a careful lookout and use extreme care when working around overhead obstructions. Never allow the mower head or boom within 10 feet of any power line. When working close to overhead power lines consult your electric company for a safe code of operation. (SBM-7)



## **7. OPERATING THE TRACTOR AND IMPLEMENT**

**THE OPERATOR MUST COMPLETELY UNDERSTAND HOW TO OPERATE THE TRACTOR AND IMPLEMENT AND ALL CONTROLS BEFORE ATTEMPTING TO OPERATE.** The operator must read and understand the Safety and Operation Sections of the implement and tractor operator's manuals. These manuals must be read and explained to any operator who cannot read. Never allow someone to operate the implement and tractor without complete operating instructions.

Before starting any operation, the operator must become familiar with the area to be worked in and any obstacles and hazards contained within to ensure safety to the operator, bystanders, and equipment. Special attention should be paid to foreign debris, rough terrain, steep slopes, and passersby and animals in the area. OPS-U- 0015

## **WARNING**

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the mower head. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the cutting area for such objects before mowing. Remove any like object from the site. Never allow the cutting blades to contact such items. (SGM-06)

## **WARNING**

Mow at the speed that you can safely operate and control the tractor and mower. The correct mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 2-5 mph (3-8 kph). Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-07)

## **WARNING**

Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before mowing. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop mowing immediately if blades strike a foreign object. Repair all damage and make certain rotor or blade carrier is balanced before resuming mowing. (SGM-05)





# OPERATION

## **7.1 Position Controls**

All operating positions of the mower are controlled with two control valve levers. The 'lift' function control permits selection of Up, Lock, or Down position and the 'tilt' control may be placed in one of four positions; Up, Lock, Down, or Float.

Moving the 'lift' lever up will raise the cutter bar. Release the lever and it will automatically return to the center position to lock the cutter bar into position. Moving the "lift" lever down will lower cutter bar.

Lift the 'tilt' lever and the cutter bar tip will arc up toward the operator. Push down on the tilt control lever and the tip of the cutter bar will rotate down. Release the lever and it will automatically return to center position to lock the cutter bar into position. By pushing the lever all the way down, it will lock into float detent position. This allows the cutter bar to follow the contour of the ground. The tilt function also incorporates an additional feature. If the tilt is lifted to its maximum position, the lift cylinder will engage and fully raise the cutter bar to maximum up position. When the tilt is lowered the bar will automatically return to the same lift height it was. This allows the operator to use one lever to raise the cutter bar to avoid an obstruction such as a utility pole.

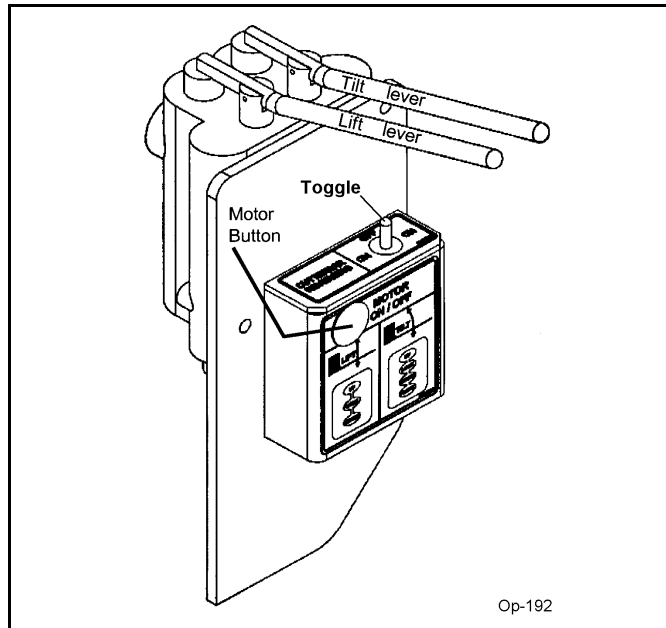
If it is necessary to hold the cutter bar in the air (in such conditions as mowing over water, stones, or other debris) the operator should then set the height with the 'lift' control in the hold (center) position and the 'tilt' control in the hold (center) position. The valve incorporates holding components to maintain position.

## **7.2 MOTOR CONTROL**

The motor starts when the button on the control stand is pulled out and tractor engine is running. The motor rotation can be reversed, to clear cutter bar, by moving the toggle switch, located above the motor switch, to the center position, allow the cutter bar to stop and then move the toggle to the other position.

## **7.3 KNIFE SPEED**

Operate the tractor engine at the RPM that will produce 540 PTO RPM. This will produce the proper knife speed for the cutter bar.



# OPERATION

## **⚠ WARNING**

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the mower head. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the cutting area for such objects before mowing. Remove any like object from the site. Never allow the cutting blades to contact such items.

(SGM-06)

## **7.4 TRACTOR MOWING SPEED**

The best mowing speeds are usually between 1-3 MPH. Conditions will vary with the material being cut and the terrain, but select a speed producing the desired result and maintain that speed. If too much material falls on the cutter bar, increase the ground speed slightly. If grass is being torn out, slow down by switching to a slower gear to allow the knife time to cut clean. If the cutter bar breaks back frequently when cutting heavy dead grass, brush, or vines, slow down to allow the knife time to cut cleanly.

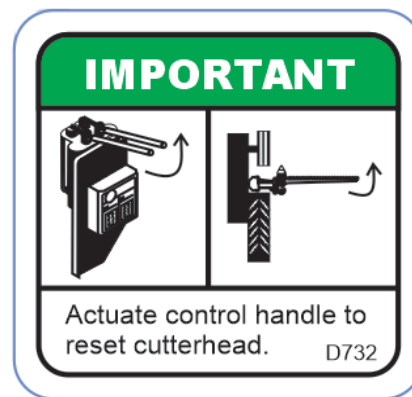
## **⚠ WARNING**

Mow at the speed that you can safely operate and control the tractor and mower. The correct mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 2-5 mph (3-8 kph). Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-07)

## **7.5 CUTTER BAR BREAK-BACK**

When the cutter bar strikes an obstruction while traveling forward, it will break back against the rotor actuator. The cutter bar will stay back until you bump the control handle to return it to the cutting position. **NOTE: The Break-Away System only allows the cutter bar to break back. Do not back the tractor or allow it to roll back with the rear edge of the cutter bar against an obstruction. Severe damage to the carriage or other components may result.**

**IMPORTANT:** Do not slide the cutter bar past the obstruction. If necessary, back up, adjust the bar to clear the obstacle and proceed with mowing.



If knife jams or stalls on a large branch or other debris, it can often be cleared by moving the cutter bar toggle switch to the off position, waiting until the cutter bar stops, then moving the toggle to the reverse position. This will sometimes clear the jam. If the jam is not cleared, idle the tractor, stop the tractor engine, and clear the jam by freeing the obstruction manually. Always keep fingers, hands and other body parts clear of cutter bar knife. The knife can move suddenly, even with the tractor engine shut down.

## **⚠ CAUTION**

Do not back up with this implement. Backing could damage the machine or its components.

(S3PT-4)

# OPERATION



Never interfere with factory-set hydraulic calibrations. Any change in calibration could cause a failure of the equipment and may result in injury. (SBH-13)

## 7.6 Operating the KSB

Only operate the unit from the tractor operator's seat with the seatbelt securely fastened on a ROPS or cab equipped tractor. The unit is designed for roadside mowing of grass and small weeds. Sharp blades will produce a cleaner cut and require less power. Travel at a speed that allows the mower sufficient time to cut through the vegetation and maintain operating speed to prevent overloading the unit and tractor. Choose a driving pattern that provides the maximum pass length and minimizes turning. Stay alert and watch for trees, low hanging limbs, power lines, and other overhead obstacles and solid ground objects while you are operating.

Avoid mowing in the reverse direction. If the mower must be backed to access an area to cut, make sure there are no persons or other foreign debris behind the tractor and unit before mowing in reverse. When mowing in reverse, operate the tractor and unit at a reduced ground speed to ensure control of the tractor and unit is maintained.

Operators should be aware that sickle bar mowers are precision cutting machines. They are designed to cut like a pair of fine shears but are subjected to the roadside punishment of a bulldozer!

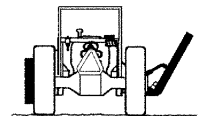
If the mower is not cutting properly, the operator must be prepared to make on-the-job adjustments to assure good cutting and avoid costly repairs. Keep a grease gun, oil can, heavy hammer, screw driver, and proper size wrenches on the tractor at all times. Since most of the day-to-day problems originate in the cutterbar, operators should keep the cutterbar in adjustment and make sure that the knife is sharp. Refer to the service instructions for specific adjustments and information.

To save time, it is recommended that spare knives and rockguards be carried on the tractor for replacement on the job.

Follow the daily lubrication procedures given in the service instructions. Keep all nuts, bolts, and screws tight. A carefully adjusted and maintained mower will make the job easier and reward you with outstanding performance, long life, and reduced maintenance. OPS-SB- 0007\_A



Never leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SSM-4)

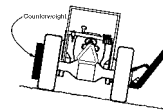


Do not operate Mower if excessive vibration exists. In the case of extreme vibration, shut down the Mower and the Tractor engine and wait until all motion has stopped. Inspect the Mower to determine the source of the vibration. If any Mower blades are missing or damaged replace them immediately. Operating the Mower with excessive vibration can result in component failure and broken objects could be thrown outward. To reduce the possibility of property damage and personal injury, never allow the Mower to be operated with excessive vibration. (SSM-3)

# OPERATION

## ⚠ WARNING

Maintain adequate tractor stability to prevent lateral instability and possible tip-over which could result in serious bodily injury or even death. Widen the wheel tread and add wheel weights where necessary. Refer to the mounting instructions or call Customer Service if you need assistance with Counterweight Procedure. (SSM-2)



## 7.7 Shutting Down the KSB

To shut down implement, first bring the tractor to a complete stop. Decrease engine RPM to idle then disengage implement. The implement will come to a complete stop within a suitable amount of time. Do not engage or disengage the implement at a high RPM unless there is an emergency situation.

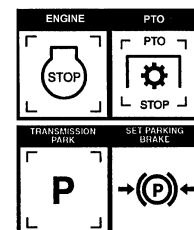


Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor. OPS-SB- 0008\_A



## ⚠ DANGER

BEFORE leaving the tractor seat, lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



# OPERATION

## 8. TRACTOR AND KSB STORAGE

Properly preparing and storing the unit at the end of the season is critical to maintain its appearance and to help ensure years of dependable service. The following are suggested storage procedures:

- Thoroughly clean all debris from unit to prevent damage from rotting grass and standing water.
- Lubricate all grease points and fill oil levels according to the maintenance lubrication schedule.
- Tighten all bolts to the proper torque. Ensure all pins and other hardware are in place.
- Check the unit for worn and damaged parts. Perform repairs and make replacements so that the unit will be ready for use at the start of the next season.
- Store the unit in a clean and dry location.
- Use spray touch-up enamel where necessary on bare metal surfaces to prevent rust and to maintain the appearance of the unit.

OPS-SB- 0009\_A



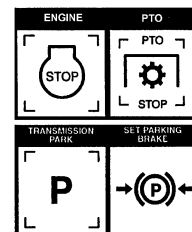
Ops-2019



Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Inadvertent contact with controls can cause the Implement to shift or fall crushing themselves or others. (SG-25)



BEFORE leaving the tractor seat, lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



Perform service, repairs and lubrication according to the maintenance section. Ensure the unit is properly lubricated as specified in the lubrication schedule and all bolts and nuts are properly torqued. Failure to properly service, repair and maintain this Implement in good operating condition could cause component failure and possible serious injury or even death. (SG-35)

## 9. TRANSPORTING THE TRACTOR AND IMPLEMENT

Inherent hazards of operating the tractor and implement and the possibility of accidents are not left behind when you finish working in an area. Therefore, the operator must employ good judgement and safe operation practices when transporting the tractor and implement between locations. By using good judgement and following safe transport procedures, the possibility of accidents while moving between locations can be substantially minimized. OPS-U- 0017



# OPERATION



Never allow children or other persons to ride on the Tractor or Implement.  
Falling off can result in serious injury or death. (SG-10)



## OPERATION

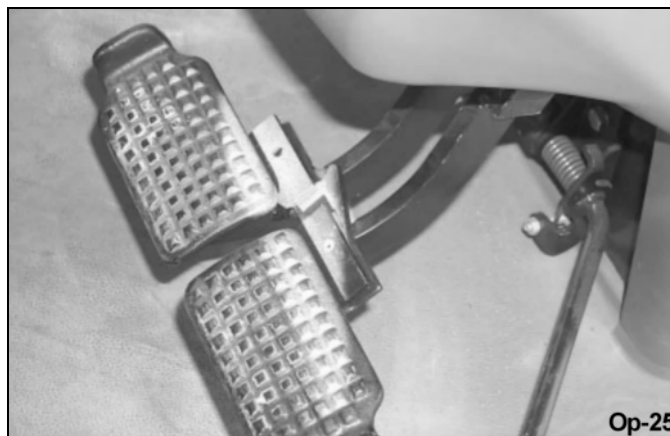
The control valve incorporates load holding components which will keep the bar locked in position. Under normal transport situations, this system will keep the bar in position. However, for added security when transporting over a long distance use the transport safety pins and hair pins provided with the mower. Install as follows:

1. Shut off the mower motor. (Push in red knob)
  2. Raise the cutterbar to the vertical position by fully raising the lift and then the tilt.
  3. Shut off the tractor engine.
  4. Insert the short carriage transport pin thru the subframe clevis and behind the carriage lug. Insert the hair pin. The boom is now in the transport position. To remove the boom from the Boom Rest, pull the Lift back and raise the boom about 6 inches. Then Swing the boom around to the desired position.
- OPS-SB-0010\_A*



Before transporting the tractor on a public roadway or boarding a trailer for transport, the tractor brake pedals should be locked together. Locking the pedals ensures that both wheels brake simultaneously while stopping, especially when making an emergency stop.

Use extreme caution and avoid hard applications of the tractor brakes when towing heavy loads at road speeds. Never tow the implement at speeds greater than 20 MPH (32 kph). *OPS-U- 0018*



## 9.1 Transporting on Public Roadways

Extreme caution should be used when transporting the tractor and mower on public roadways. The tractor must be equipped with all required safety warning features including a SMV emblem and flashing warning lights to alert drivers of the tractor's presence. Remember that roadways are primarily designed for automotive drivers and most drivers will not be looking out for you, therefore, you must look out for them. Check your side view mirrors frequently and remember that vehicles will approach quickly because of the tractor's slower speed. Be extremely cautious when the piece of equipment that you are driving, is wider than the tractor tire width and/or extends beyond your lane of the road. *OPS-B- 0014*

# OPERATION

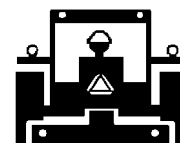
The SMV (Slow-Moving Vehicle) emblem is universal symbol used to alert drivers of the presence of equipment traveling on roadways at a slow speed. SMV signs are a triangular bright orange with reflective red trim for both easy day and night visibility. Make sure the SMV sign is clean and visible from the rear of the unit before transporting the tractor and implement on a public roadway. Replace the SMV emblem if faded, damaged, or no longer reflective. OPS-U-0020



**DANGER** Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)



**WARNING** Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)



Make sure that all tractor flashing warning lights, headlights, and brake/taillights are functioning properly before proceeding onto public roads. While newer model tractors have plenty of lighting to provide warning signals and operating lighting, most older models were only equipped with operating lights. Consult an authorized tractor dealer for lighting kits and modifications available to upgrade the lighting on older tractor models. OPS-SB-0011\_A



# OPERATION

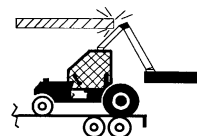
## OPERATION

When operating on public roads, have consideration for other road users. Pull to the side of the road occasionally to allow all following traffic to pass. Do not exceed the legal speed limit set in your country for agricultural tractors. Always stay alert when transporting the tractor and mower on public roads. Especially in busy cities be careful that there are no bystanders, poles, large obstructions or any vehicles that may be in path of the mower. Use caution and reduce speed if other vehicles or pedestrians are in the area. OPS-SB- 0012\_A



### DANGER

When transporting Boom Mower on a truck or trailer, the height or width may exceed legal limits when the boom is in the transport position. Contact with side or overhead structures or power lines can cause property damage or serious injury or death. If necessary lower boom to reduce height and/or remove mowing head to reduce width to the legal limits (SBM-8)



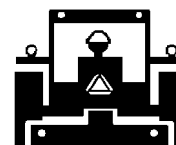
### DANGER

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)



### WARNING

Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)



Reduce speed before turning or applying the brakes. Ensure that both brake pedals are locked together when operating on public roads. OPS-U- 0023





# OPERATION

## **9.2 Hauling the Tractor and Implement**

Before transporting a loaded tractor and implement, measure the height and width dimensions and gross weight of the complete loaded unit. Ensure that the load will be in compliance with the legal limits set for the areas that will be traveled through. *OPS-U- 0024*



Use adequately sized and rated trailers and equipment to transport the tractor and implement. Consult an authorized dealer to determine the proper equipment required. Using adequately sized chains, heavy duty straps, cables and/or binders, securely tie down both the front and rear of the tractor utilizing the proper tie down locations as specified by the tractor manufacturer. *OPS-U- 0025*



Arrange the chains so that when tightened, the chains are pulling downward and against themselves. Carefully tighten the securing chains or other fasteners using boomers or binders to apply maximum tension. Use extreme care when attaching and removing the securing devices as the extreme tension involved when released has the potential to inflict serious injury.

While hauling the tractor and implement, make occasional stops to check that the tractor and implement have not moved or shifted and that the securing chains have maintained tension. If during transport a hard braking, sharp turning, or swerving action was performed, stop at the next safe location to inspect the security of the load. *OPS-U- 0026*





# **MAINTENANCE SECTION**

Maintenance Section 4-1

# MAINTENANCE

## LUBRICATION INFORMATION

For continued good cutting and trouble-free operation, it is important to follow these instructions accurately.

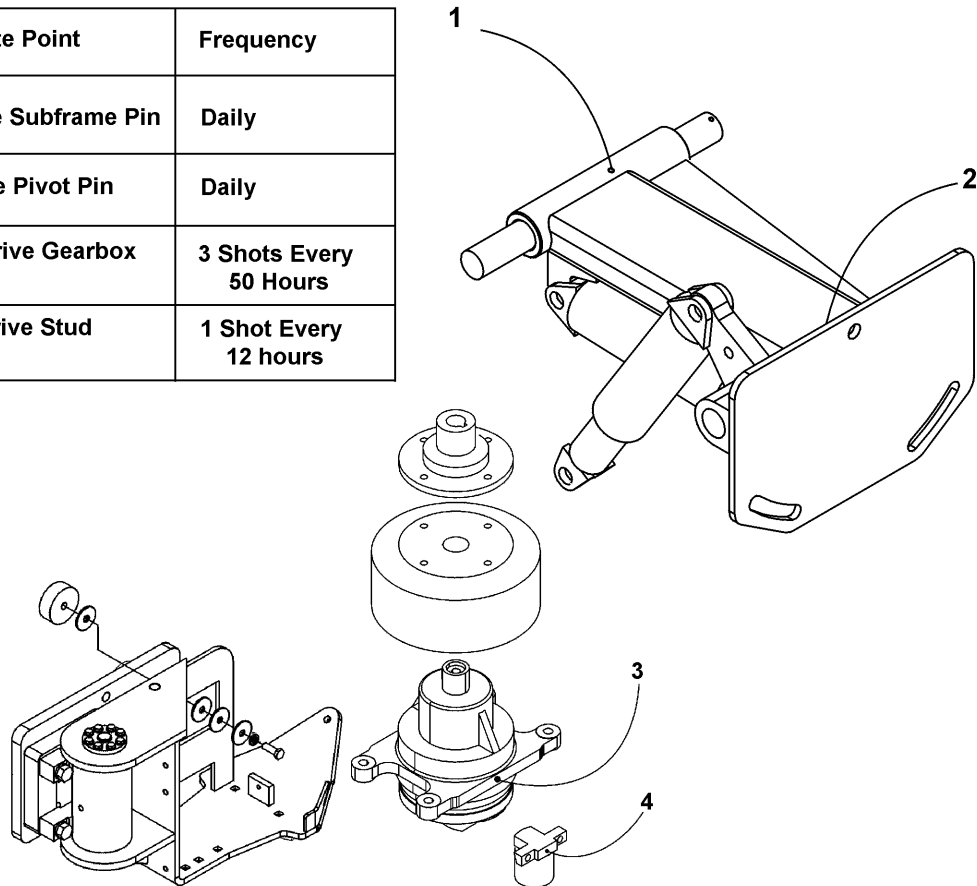
Shut off the tractor engine and remove key before lubricating the mower.

Greasing: Wipe dirt from grease fittings and grease gun nozzle before greasing. Replace missing or damaged grease fittings immediately. Use a good grade of lithium based #2 grease where grease fittings are provided. Do not over-lubricate. Stop as soon as clean grease emerges from the joint, unless noted other wise below.



This safety alert symbol is used to point out areas requiring precautions for your safety. Failure to observe these warnings could result in injury to you. DO NOT attempt to make adjustments with the mower or tractor running!

Lubricate Point	Frequency
1. Carriage Subframe Pin	Daily
2. Carriage Pivot Pin	Daily
3. Knife Drive Gearbox	3 Shots Every 50 Hours
4. Knife Drive Stud	1 Shot Every 12 hours



MntP-0001

# MAINTENANCE

## INITIAL HYDRAULIC SYSTEM CLEANING

After the first 100 hours of operation, or if the filter condition gauge shows in the red area when the oil is above 100°F drain, clean and replace the filter. Replace the oil after 250 hrs of operation. The oil and filter should be changed in the following manner:

1. On a flat clean area, lower the mower to the floor, turn off the tractor, set the park brake and remove key.
2. Remove the magnetic drain plug from the bottom of the reservoir and drain the oil into a catch container. Discard the used oil according to the regulations in your area. Clean off any particles attached to the magnetic drain plug. Reinstall the plug using a paste-type pipe thread sealant suitable for hydraulic use.
3. Remove the suction hose and suction fittings from the tank. Remove the suction screen. (Refer to the Tank Assembly in the parts section). Wash the suction screen in clean solvent and allow to dry thoroughly. Reinstall the suction screen, suction fittings and suction hose using a paste-type pipe thread sealant suitable for hydraulic use.
4. Unscrew the cap from the top of the filter housing. Remove the filter element from the bowl and replace with the new filter element provided with the new unit.
5. Fill the reservoir with a good grade of clean universal tractor hydraulic oil. Always add oil using a system that filters the oil prior to being added to the tank. Never assume that any oil, even new oil in a new container, is contaminant free. To rapidly fill the tank, remove the filter cartridge from the bowl. Fill the tank until the oil is at the top of the sight gauge. Reinstall the element and screw cap.
6. Start the tractor and check for leaks.

## RESERVOIR OIL & FILTER MAINTENANCE

Dirty oil can destroy the hydraulic system. Dirt scores valve spools and cylinder plungers and gouges metal from pump and motor thrust plates, gears, and housings. If mower performance is lagging or system is running hotter, the cause could be oil contamination. The oil reservoir has a filter condition gauge located on the filter housing. The filter will show in the red arc when the oil filter needs changing or when the oil temperature is below 100 degrees F. The oil filter should be changed after every 400 hours or every 12 months of operation or when the gauge shows in the red arc when the oil temperature is above 100 degrees F. When changing the filter, also replace the breather filter element located under the black cap. Refer to Filter Assembly in the parts section. Change the oil every 500 hours or 12 months as described in the above procedure. Use Chevron 1000 THF or an equivalent oil.

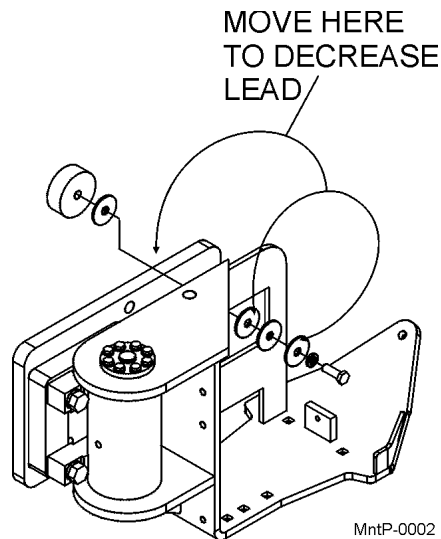
**NOTE:** *Your ambient temperature and operating conditions may require a different viscosity oil. Please contact the oil manufacturer for proper specifications.*

# MAINTENANCE

## MAINTENANCE

### CUTTERBAR ADJUSTMENTS

**Lead:** The lead angle of the cutter bar is preset at the factory at 3/16" per foot. The lead may be changed, if desired. To reduce the lead, move the washers from the outside of the cutter bar support plate in between the rubber strike pad and plate. See **Image MntP-0002**



**Pitch:** The pitch of the cutter bar can be infinitely adjusted  $\pm 15^\circ$  by loosening the three carriage plate attachment bolts and moving the two bottom bolts in the curved slots.

### CUTTERBAR ALIGNMENT

All cutting is done by the knife section passing over the ledger plate in the guard. It is vital that these sections are parallel with ledger plates and in contact with them. See **Image MntP-0003**

The knife should move smoothly in the cutter bar guides and every knife section should rest on the ledger plate to make a shear cut. This means the guards, ledger plates, wear plates, clip and knife head caps must be in good condition and correctly set. If these parts become loose or worn, the knife will flop around in the cutter bar, chewing and tearing instead of cutting.

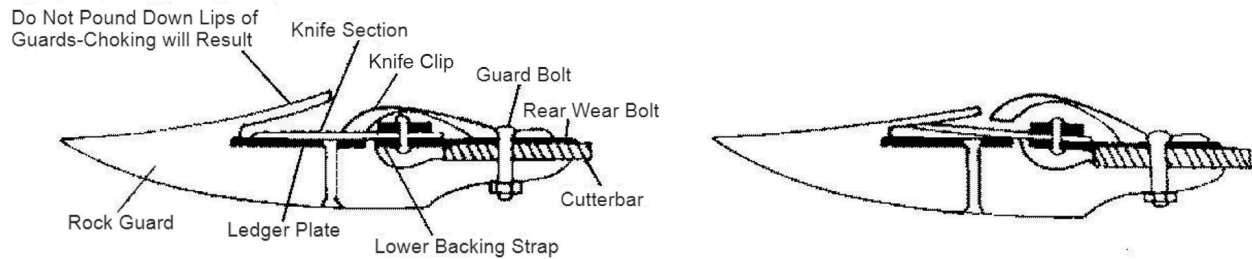
### GUARD ADJUSTMENT

1. To align the guards, the only method provided to accomplish this very important adjustment is to bend the guards into alignment with a hammer. No easier method has been found to adjust heavy duty guards which will stand up in rocky conditions.

**NOTE:** Guards are cast from alloy steel. If they are worked too much, they will work harden and cannot be bent. In this case remove the guard from the bar and remove the ledger plate. Heat the guard to a cherry red and cool. This process will anneal the guard enough that it can be bent.

2. Raise the bar to about 45 degrees. Make sure the knife is at the full retracted position of the stroke so the flywheel doesn't suddenly turn and catch your fingers in the knife. Shut off the engine and set parking brake.

# MAINTENANCE



MAINTENANCE

3. Sight down the bar and look for a knife section in close contact with a guard ledger. If the section to the right and left are both  $\frac{1}{8}$ " off the ledger, DO NOT bend the two side ones up until they contact the knife. This is **WRONG!** The high guard should be knocked down until all three contact. The higher up a guard gets bent, the more the knife section will tend to contact only the tip.
4. Bolt the guards tight and strike them at the thick part, just in front of the ledger plates. Do not pound down the guards lips as the knife might bind. Retighten the bolts as each guard is aligned. Disregard the position of the guard points. It is the ledger plate which must be kept in line. Blunt points should be filed sharp.
5. Start from the inner shoe, adjust each guard so that the knife section and ledger are parallel and reasonably close to each other. Find the high guard and knock them down. Usually, the only time it is necessary to knock a guard up is when new guards are first installed on the bar.
6. Make certain that the first knife section is contacting the inner shoe ledger plate. If it doesn't contact, check the first or second guard which may be holding the knife up or the inner shoe ledger plate may be worn out.
7. Finally, align the industrial outer shoe in the same way as guards.

## WEAR PLATE

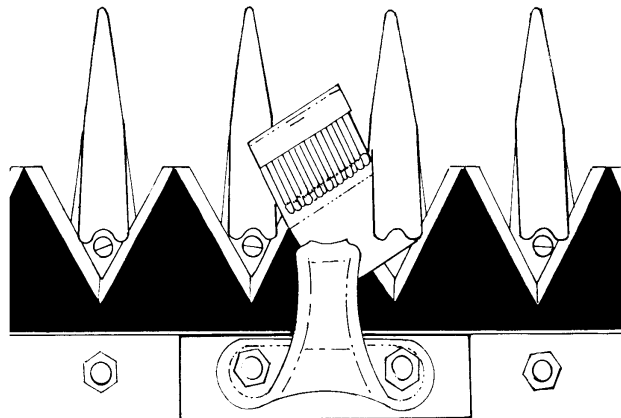
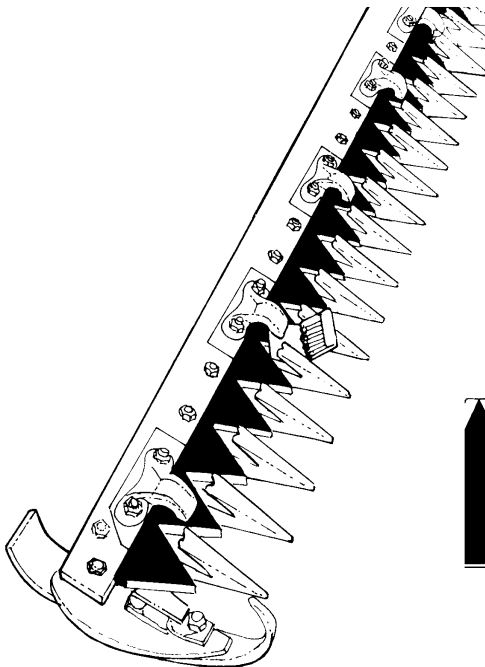
The wear plates must line up with each other to give the knife back straight bearing along its entire length. Wear plates should project approximately  $\frac{1}{16}$ " in front of the leading edge of the cutter bar after adjustment. Terrain King wear plates are hardened on both edges. After the first edge has worn back, simply turn over the plate to obtain a new wearing surface.

## CLIPS

After all guards are adjusted, it is necessary to see that the knife clips are bent down to within  $\frac{1}{64}$ " of the section. The easiest way to check this is to hold the knife down on the ledger plate and use a feeler gauge or the cover of a matchbook to measure the clearance. Do not attempt to hold the knife tightly against the ledger plate with the clips. Knock the clips down with a hammer. A light blow is all that is required. If the clips drag on the knife, pry them up. Drag will bind the knife and wear out the clip very rapidly. See **Image MntP-0004**

# MAINTENANCE

## MAINTENANCE



### STANDARD HEX HEAD CAP SCREW S.A.E. GRADE #5

BOLT SIZE	LOAD*	TORQUE
1/4-20	2,000 lbs.	8 ft. lbs.
1/4-28	2,300 lbs.	10 ft. lbs.
5/16-18	3,350 lbs.	17 ft. lbs.
5/16-24	3,700 lbs.	19 ft. lbs.
3/8-16	4,950 lbs.	30 ft. lbs.
3/8-24	5,600 lbs.	35 ft. lbs.
7/16-14	6,800 lbs.	50 ft. lbs.
7/16-20	7,550 lbs.	55 ft. lbs.
1/2-13	9,050 lbs.	75 ft. lbs.
1/2-20	10,200 lbs.	85 ft. lbs.
9/16-12	11,600 lbs.	110 ft. lbs.
9/16-18	13,000 lbs.	120 ft. lbs.
5/8-11	14,500 lbs.	150 ft. lbs.
5/8-18	16,300 lbs.	170 ft. lbs.
3/4-10	21,300 lbs.	270 ft. lbs.
3/4-16	23,800 lbs.	300 ft. lbs.
7/8-9	29,500 lbs.	430 ft. lbs.
7/8-14	32,400 lbs.	475 ft. lbs.
1"-8	38,700 lbs.	645 ft. lbs.
1"-12	42,300 lbs.	705 ft. lbs.
1"-14	43,300 lbs.	720 ft. lbs.

\*Clamp Load lbs. equal to 75% of Bolt Proof Load

### METRIC CAP SCREW GRADE 8.8 = U.S. GRADE #5 (APPROX.)

BOLT SIZE	LOAD*	TORQUE
6 mm R.P.	2,000 lbs.	8 ft. lbs.
6 mm F.P.	2,300 lbs.	10 ft. lbs.
8 mm R.P.	3,350 lbs.	17 ft. lbs.
8 mm F.P.	3,700 lbs.	19 ft. lbs.
10 mm R.P.	4,950 lbs.	30 ft. lbs.
10 mm F.P.	5,600 lbs.	35 ft. lbs.
12 mm R.P.	6,800 lbs.	50 ft. lbs.
12 mm F.P.	7,550 lbs.	55 ft. lbs.
14 mm R.P.	9,050 lbs.	75 ft. lbs.
14 mm F.P.	10,200 lbs.	85 ft. lbs.
16 mm R.P.	11,600 lbs.	110 ft. lbs.
16 mm F.P.	13,000 lbs.	120 ft. lbs.
18 mm R.P.	14,500 lbs.	150 ft. lbs.
18 mm F.P.	16,300 lbs.	170 ft. lbs.
20 mm R.P.	21,300 lbs.	270 ft. lbs.
20 mm F.P.	23,800 lbs.	300 ft. lbs.

R.P. Regular Pitch  
F.P. Fine Pitch

\*Clamp Load lbs. equal to 75% of Bolt Proof Load

MntP-0004



# MAINTENANCE

## HYDRAULIC SYSTEM

### PUMP & MOTOR

The pump and motor is the heart of the hydraulic circuit and is vital to the performance of all Terrain King mowers. Worn pumps and motors should be replaced or repaired. It is recommended that most customers replace when this occurs however, spare parts and seal repair kits are available for field repair if desired. ALWAYS DRAIN, CLEAN AND REFILL THE TANK WITH CLEAN OIL when pump repairs are made.

**NOTICE:** To avoid possible damage to a new or rebuilt pump, run the tractor engine at very low RPM for about 5 minutes with all control levers in neutral position prior to placing in service.

### VALVES

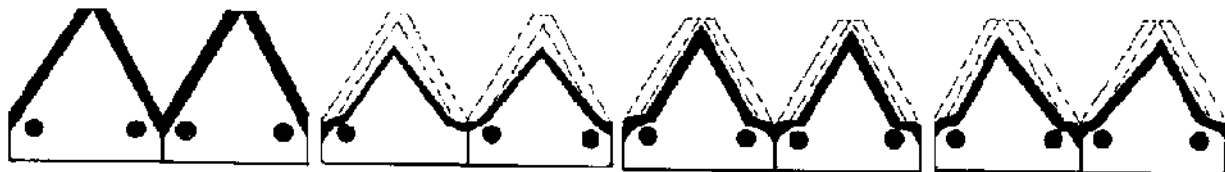
The major cause of valve malfunction is dirty oil or foreign material causing the valve spools to be scored or seals to fail. If repairs are required remove the valve from the system and thoroughly clean all parts before reassembly. Replacement parts and service kits are available. The valve body and spools are match fitted and are not interchangeable or adjustable. Check the valve lever linkage for free movement to allow the detents to locate without binding.

### KNIFE REPAIR

ALWAYS USE A SHARP KNIFE. A dull knife cuts poorly, may plug, and doesn't do a clean job. Keep the knife straight with the sections firmly riveted to the knife back. When sharpening the knife, be careful to restore the original shear angle and bevel of 23 degrees. Properly and improperly ground knife sections are shown in the Fig. MntP-0005. A knife section that has been ground several times may have the proper angle and bevel and still be un-serviceable because the hard cutting edge has been ground away and the section is too short to cut everything encountered.

### KNIFE

Replace worn or broken knife sections. Terrain King knife sections are heavy duty sections made of special steel and will stay sharp for many more hours than conventional sections.



New Sections - proper bevel and angle for good work.

Improperly ground sections-narrow bevel and wrong angle which changes the angle of 'shear'.

Sections properly ground even after repeated grinding, proper bevel and angle are retained.

Sections ground off center, destroying the register of blade in guard.

MntP-0005

# MAINTENANCE

## MAINTENANCE

### LEDGER PLATES

Terrain King rock guards use bolt-on ledger plates. It is not necessary to remove the guards from the cutter bar. Follow this simple procedure to remove the ledgers. (Remove the knife from the mower first.)

1. Raise the cutter bar off the ground and block up.
2. Using a punch, drive the bolt from the head end through the guard. The head will shear off. It is not necessary to remove the nut.
3. Scrape all dirt from the mating face of the guard.
4. Snap in the new ledger and tighten the new bolt and nut. Make sure the ledger is down TIGHT in contact on its bottom face.
5. Stake over or flatten the bolt on the nut side to make sure it does not become loose.
6. Check and tighten the guard-cutter bar attaching bolt.

Inner and outer shoe ledger plates are attached with rivets. These ledgers can also be replaced without removing the shoe.

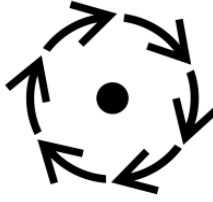
1. Shear off the old rivets by a sharp blow with a hammer at the edge of the plate.
2. Scrape dirt off the shoe mating face.
3. Install new ledger plate and rivets. Make sure they are TIGHT.

**ATTENTION:** Loose ledger plates can cause poor cutting and destroy otherwise usable knives, guards, and shoes. KEEP LEDGERS TIGHT.

### Cylinder Rod Maintenance

It is important to visually inspect the hydraulic cylinder rods daily before use. It is highly recommended that while the machine is stored or getting very little use that a protectant is applied to the hydraulic cylinder rods to prevent degradation. If the machine receives more frequent use, be sure to fully cycle each cylinder function so that the cylinder rod is coated by the systems hydraulic fluid. Depending on your operating environment it may be necessary, under normal operating conditions, to apply a protective lubricant to the cylinder rods for protection against rust and pitting. Hydraulic fluid may provide a suitable amount of protection, but remember any protectant can attract dust and debris so attention must be given to the cylinder rods daily. Also remember that any other protectant must be compatible with hydraulic fluid. Terrain King is not responsible for rust or pitting of the cylinder rod due to weather exposure or impacts from normal operation or mounting. If hydraulic cylinders and or the cylinder rods are damaged as a result of the rods rusting or pitting, the hydraulic cylinders and rods will not be covered under warranty by Terrain King.



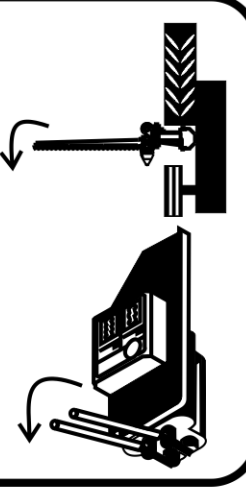
<b>WARNING</b>			<b>540 RPM</b> OPERATE THIS MACHINE AT TRACTOR PTO SPEED ONLY. Overspeeding PTO may cause component failure resulting in bodily injury. TRACTOR PTO ROTATION: CLOCKWISE
<b>ADVERTENCIA</b>		<b>540 RPM</b> OPERE ESTA MÁQUINA A VELOCIDAD DE PTO (TOMA DE FUERZA O BARRA GITATORIA) DEL TRACTOR DE 540 RPM. El sobre exceso de velocidad de PTO puede causar el fracaso de componente que resultará en lesión. ROTACION DE PTO DEL TRACTOR: EN SENTIDO HORARIO	D635

<b>WARNING</b>		<b>ADVERTENCIA</b>	
Cancer and Reproductive Harm <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>		Cáncer y Daño Reproductivo <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>	
<b>IMPORTANT</b>		<b>IMPORTANTE</b>	
<b>BE AWARE</b> <b>BE ALERT</b> <b>BE ALIVE</b> <b>Before Operating this Mower</b>		<b>ESTE CONSCIENTE</b> <b>ESTE ALERTO</b> <b>ESTE VIVO</b> <b>Antes de Funcionar Cortacésped</b>	
<b>TO AVOID DEATH OR SERIOUS INJURY:</b> <ul style="list-style-type: none"> <li>ONLY use genuine Alamo Industrial replacement parts, which have been validated and tested to use on Alamo Industrial equipment by the manufacturer.</li> <li>The equipment manufacturer cannot verify the material or structural integrity of third-party supplied non-genuine replacement parts.</li> <li>Using non-genuine parts can result in the part failing, creating hazardous conditions for operator and bystanders.</li> <li>Contact local dealer or ALAMO INDUSTRIAL about repair parts at: 1502 E. Walnut, Seguin, TX 78155. Customer Service: 800-882-5762. Email: support@alamo-industrial.com</li> </ul>		<b>PARA EVITAR MUERTE O LESION GRAVE:</b> <ul style="list-style-type: none"> <li>El uso de piezas no originales puede provocar el fallo de la pieza, creando condiciones peligrosas para el operador y personas presentes.</li> <li>SÓLO use piezas de repuesto genuinas de Alamo Industrial, que han sido validados y probados para usar en equipo Alamo Industrial por el fabricante.</li> <li>El fabricante del equipo no puede verificar el material o integridad estructural de piezas de repuesto no genuino suministrados.</li> <li>Contacte a su distribuidor local o ALAMO INDUSTRIAL sobre partes de repaso a: 1502 E. Walnut, Seguin, TX 78155. Servicio al Cliente: 800-882-5762. Correo Electronico: support@alamo-industrial.com</li> </ul>	
To prevent serious injury to yourself and/or bystanders, be trained in Safe Mowing Practices. Alamo Group Companies, Alamo Industrial, Bush Hog, M&W, Rhino, Schulte, Tiger and Terrain king as well as AEM and FEMA provide training material that is critical for your Safety and the Safety of others when operating this equipment. Make these Safety Procedures an important part of every workday. Read and understand the Operator's Manual. Do not let untrained individuals operate this equipment. Contact your Dealer, AEM (www.aem.org), FEMA (314-878-2304, www.FarmEquipment.org), or Alamo Group (www.Alamo-Group.com) for information on training material or courses that provide training in Safer Operating Practices for Mowers.		Para prevenir lesiones graves a usted y/o personas presentes, sea entrenado en la Práctica de Segar Seguro. Compañías de Alamo Group, Alamo Industrial, Bush Hog, M&W, Rhino, Schulte y Tiger así como AEM y FEMA proporcionan material para su entrenamiento que es esencial para su seguridad y la seguridad de otros al operar este equipo. Haga estos procedimientos de seguridad una parte importante de su día de trabajo. No permita que personas sin entrenamiento funcionen este equipo. Contacte a su distribuidor, AEM (www.aem.org), FEMA (314-878-2304, www.FarmEquipment.org), o Alamo Group (www.Alamo-Group.com) para la información sobre el material de entrenamiento o cursos que ofrecen el entrenamiento de Prácticas de Operación para Cortadoras.	

SEGURIDAD

**IMPORTANT**

Actuate control handle to reset cutterhead.



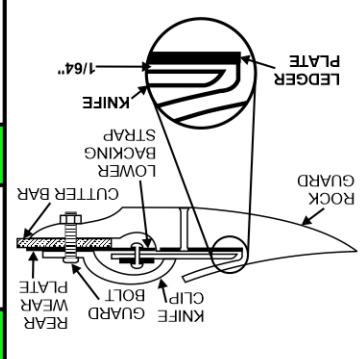
**IMPORTANT**

Actuar la palanca de control para restablecer la cabeza cortadora. D732

**IMPORTANT**

**To avoid poor cutting performance:**

- Inspect knife to ledger plate clearance daily.
- Maintain 1/64" clearance.
- Refer to Operator's Manual for service instructions.



**IMPORTANT**

**Para evitar el mal rendimiento de corte:**

- Inspeccione la separación de la cuchilla a la placa de rotura diariamente. Mantenga la separación de 1/64".
- Refiérase al Manual de Operador para las instrucciones de servicio. D725

**IMPORTANT**

Service hydraulic system with universal tractor hydraulic oil. Part number 30002966307

**IMPORTANT**

Mantenga el sistema hidráulico con aceite hidráulico universal de tractor. Número de parte 30002966307. D877 SP



SEGURIDAD

KSB6 08/20

© 2020 Alamo Group Inc.

Sección de Seguridad 1-14



**TO AVOID DEATH OR SERIOUS INJURY:**

- READ AND UNDERSTAND the provided Operator's Manuals, safety signs and information decals for tractor and implement before operating equipment.
- CONTACT DEALER immediately if you do not have manuals.
- CONTACT DEALER to explain any instructions not fully understood.
- KNOW HOW to stop tractor and equipment quickly for an emergency.
- ALWAYS WEAR safety glasses.
- WEAR hard hat, safety shoes and gloves for protection when operating equipment.



**TO AVOID DEATH OR SERIOUS INJURY:**

- ALWAYS USE Roll Over Protective Structure ("ROPS") including ROLL BAR and SEAT BELT equipped tractors for mowing operations.
- ONLY START Tractor while seated in the operator's seat.
- DO NOT MOUNT or DISMOUNT tractor in motion.
- NEVER ALLOW riders on tractor or implement.
- NEVER ALLOW children to operate or ride on tractor or implement.
- KEEP BYSTANDERS CLEAR of area before moving tractor or implement.
- STOP ENGINE AND PTO, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from tractor.

**! DANGER**

Run Over Hazard

D881-2

D881-1

# SAFETY

<p><b>⚠️ ADVERTENCIA</b></p> <p><b>PARA EVITAR MUERTE O LESION GRAVE POR LA PENETRACION A LA PIEL POR ALTA PRESION DE ACEITE HIDRAULICO:</b></p> <ul style="list-style-type: none"> <li>• NO OPERE el equipo con fugas de aceite o combustible.</li> <li>• MANTENGA todas las mangueras hidráulicas, líneas y conexiones en buenas condiciones y apretadas antes de aplicar presión al sistema.</li> <li>• Releve la presión hidráulica antes de desconectar las líneas o trabajar en le sistema.</li> <li>• QUITÉ y reemplace la manguera si sospecha que hay fuga.</li> </ul> <p><b>FUGAS DE ALTA PRESION PUEDEN SER INVISIBLE. AL VERIFICAR POR TRABAJANDO ALREDEDOR DE SISTEMAS HIDRAULICOS:</b></p> <ul style="list-style-type: none"> <li>• NO use las manos para verificar si hay agujeros.</li> <li>• SIEMPRE USE lentes de seguridad y guantes impenetrables.</li> <li>• USE papel o un cartón para buscar agujeros.</li> <li>• NO USE las manos o partes del cuerpo para buscar agujeros.</li> <li>• MANTENGA manos y cuerpo LEJOS de agujeros de alfiler y boquillas que expulsan el líquido hidráulicos.</li> </ul>	<p><b>TO AVOID DEATH OR SERIOUS INJURY FROM HIGH PRESSURE HYDRAULIC OIL LEAKS PENETRATING SKIN:</b></p> <ul style="list-style-type: none"> <li>• DO NOT OPERATE equipment with oil or fuel leaks.</li> <li>• KEEP all hydraulic hoses, lines and connections in good condition and tight before applying system pressure.</li> <li>• Relieve hydraulic pressure before disconnecting lines or working on the system.</li> <li>• REMOVE and replace hose if you suspect it leaks. Have dealer test it for leaks.</li> <li>• HIGH PRESSURE FLUID LEAKS CAN BE INVISIBLE. WHEN CHECKING FOR AROUND HYDRAULIC SYSTEMS:</li> <li>• DO NOT use hands to check for leaks.</li> <li>• ALWAYS WEAR safety glasses with side shields (marked with ANSI Z87) and impenetrable gloves.</li> <li>• USE paper or cardboard to search for leaks.</li> <li>• KEEP hands and body AWAY from pin holes and nozzles ejecting hydraulic fluid.</li> <li>• Hydraulic fluid may cause gangrene if not surgically removed immediately by a doctor familiar with this form of injury.</li> </ul>
---	--



**NO ES PISADERA**  
MANTENGA LAS MANOS Y PIES DE LA  
MAQUINA.

**NOT A STEP**  
KEEP HANDS AND FEET OFF MACHINE

## ⚠ WARNING



# SEGURIDAD

# SAFETY



**DO NOT** allow any person under a folded wing unless wing is securely locked up or supported. **DO NOT** approach the implement unless the tractor is turned off and all motion has ceased. Never work under the frame work, or any lifted component unless the implement is securely supported or blocked up. A sudden or inadvertent fall by any of these components could cause serious injury or even death. (STI-03)



Cáncer y daño reproductivo [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## INFORMACIÓN DE PARTES

### INFORMACIÓN DE PARTES

Las cortadoras Terrain King usan balancías y componentes de sistema seleccionado para los portadores de cuchillas, cuchillas, eje de cortar, navaja, suspensiones de navajas, los rodillos, los componentes de línea motriz, y cojinetes. Estas partes son echas y probadas a la especificaciones de Terrain King. Partes que no son auténticas no regularmente llegan con estas especificaciones. El uso de partes que no son auténticas puede reducir el funcionamiento de la cortadora, anular garantías, y presentar un peligro de seguridad. Use partes de cortadora auténticas de Terrain King por economía y seguridad. (SPTK-1 SP)

### CONTACTE A SU DISTRIBUIDOR TERRAIN KING

Manuales de Partes y Operador



[www.aligqr.com/kpm](http://www.aligqr.com/kpm)

**NOTA:** Si necesita un manual completamente en español por favor de ponerse en contacto a: *Translations, direccion 1502 E. Walnut Street Seguin, TX 78155; Fax: (830) 372-9529*

# SEGURIDAD

## SAFETY

El Cortacésped es diseñado para ciertas aplicaciones que siegan y es clasificado para cortar vegetación de tamaño específica (vea Equipo Estándar de Cortacésped y Especificaciones). No use este cortacésped para cortar la vegetación encima de la capacidad calculada del Cortacésped o cortar cualquier tipo de material no vegetativo. Sólo opere este Cortacésped en un Tractor correctamente clasificado y equipado. Operando este Cortacésped en una aplicación que no esta diseñado para ser y/o el funcionamiento del Cortacésped con el Tractor de tamaño incorrecto puede causar el daño de componente de Cortacésped y el fracaso de equipo que causa la herida seria o la muerte. (SGM-14 SP)

Levante la segadora a la posición de transporte y fíjalo con el pasador de retención antes de desplazarse por carreteras públicas y almacenando el segadora en la posición vertical.. (SSM-05 SP)

No esté de pie delante del la cabeza de la segadora o realizar el servicio mientras que la cabeza está en la posición posterior rotura. La segadora podía de repente girar hacia delante causando lesiones graves. Releve toda la presión hidráulica y asegure la segadora en posición antes de realizar el mantenimiento. (SSM-06 SP)

Todos los Escudos de Seguridad, las Guardias y otros dispositivos de seguridad incluso (pero no limitado con) - Deflectors, Guardias de Acero y Escudos de Caja de cambios deben ser usados y mantenidos en la condición buena. Todos los dispositivos de seguridad deberían ser inspeccionados con cuidado al menos diariamente por ausencia de dispositivos o componentes rotos. Ausente, artículos rotos, o desgastados deben ser reemplazados inmediatamente para reducir la posibilidad de herida o muerte de objetos lanzados, enredo, o contacto de lámina. (SSM-07 SP)

Reemplazar el ensamblaje del resorte como una unidad completa. No intente quitar o reparar el resorte afuera de la Asamblea. Sólo permita un mecánico debidamente entrenado a desmontar el Asamblea de Resorte. Al liberar la tensión del resorte podría causar lesiones graves. (SSM-08 SP)

Utilice guantes y tenga cuidado cuando manipule las cuchillas. Las cuchillas son muy afiladas y pueden causar heridas en las manos y otras partes del cuerpo, si no manejados con seguridad. (SSM-09 SP)

No funcione el instrumento mientras que usa la ropa floja. El enredo de la ropa con los elementos que rotan puede dar lugar a lesión o aún a muerte seria. Permanezca su distancia de todos los elementos que giran siempre. (SSP-3 SP)



SEGURIDAD

Realice servicio, reparaciones y lubricación según la sección de mantenimiento. Asegure que la unidad es correctamente lubricada como especificado en el programa de lubricación y todos los tornillos y tuercas son correctamente apretados. Al no realizar el servicio correctamente, repare y mantenga este implemento en la condición de funcionamiento buena podría causar el fracaso componente y la herida sería posible o hasta muerte. (SG-35 SP)



No funcione este instrumento en un tractor que no se mantenga correctamente. Si una falta del control mecánico o de tractor ocurre mientras que funciona, apague inmediatamente el tractor y realice reparaciones antes de reasumir la operación. Lesión sería y la muerte posible podrían ocurrir de no mantener este instrumento y tractor en la buena condición de funcionamiento. (SG-36)



Las partes rotativas de esta máquina han sido diseñadas y probadas para el uso rugoso. Sin embargo, las láminas podrían fallar sobre el impacto con objetos pesados, sólidos como barandillas metálicas y estructuras de pavimento. Tal impacto podría hacer que los objetos rotos fueran lanzados externo en velocidades muy altas. Para reducir la posibilidad de daño a la propiedad, la herida sería, o hasta muerte, nunca permite que las láminas cortantes se pongan en contacto con tales obstáculos. (SGM-4 SP)



Siga estas pautas para reducir el riesgo de equipo y incendios de hierba cuando operando, atendiendo, y reparando el Cortacésped y Tractor:



- Equipar el Tractor con un extintor en una posición accesible.
- No operar el Cortacésped en un Tractor con un escape que esta montado por debajo del la estructura.
- No fume o tenga un llama abierta cerca del Cortacésped y Tractor.
- No conduzca en escombros ardiendo o áreas nuevamente quemadas.
- Asegurar que los embragues de resbalón son correctamente ajustados para prevenir el resbalamiento excesivo y la calefacción de plato.
- Nunca permita que recortes o escombros se reúnan cerca de líneas de conducción, embragues de resbalón, y cajas de cambios. Periódicamente apague el Tractor y el Cortacésped y limpie recortes y escombros coleccionados de la cubierta de cort-

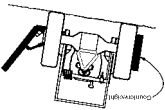
acésped. (SGM-12 SP)

No sólides o reparen componentes giratorios de cortacésped. Soldadura y otras reparaciones pueden causar la vibración severa y/o el fracaso al componente resultando en que la parte sea lanzada del cortacésped que causara daños serios. Vea a su Vendedor Autorizado para reparaciones apropiadas. (SGM-13 SP)





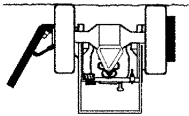
Mantenga la estabilidad del tractor adecuada para prevenir la inestabilidad lateral y posible volcadura que podría resultar en lesiones serias o incluso la muerte. Ampliar el ancho de vía de la rueda y agregar contrapesos cuando sea necesario. Consulte las instrucciones de montaje o llame al Servicio de Atención al cliente si necesita asistencia con el Procedimiento del Contrapeso. (SSM-2)



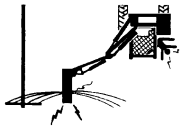
No opere la segadora si existe vibración excesiva. En el caso de vibración extrema, apague la segadora y el motor del tractor y esperar hasta que todo el movimiento se ha detenido. Inspeccione la segadora para determinar el origen de la vibración. Si las cuchillas de la segadora con la vibración excesiva puede provocar fallos en los componentes y objetos rotos pueden ser lanzados hacia afuera. Para reducir la posibilidad de daños a la propiedad y lesiones personales, nunca permita que la segadora sea operada con vibración excesiva. (SSM-3)



Nunca deje la segadora desatendida mientras que la cabeza está en posición elevada. La segadora podría caerse causando graves lesiones a quien inadvertidamente podría estar bajo de la segadora. (SSM-4 SP)



Siempre mantenga una vigilancia cuidadosa y use el cuidado extremo trabajando alrededor de obstrucciones elevadas. Nunca permita la cabeza de Cortacésped o el brazo dentro de 10 pies de cualquier línea de energía. Cuando trabajando cerca de líneas de energía elevadas consulte su compañía eléctrica para un código de la operación seguro. (SBM-7 SP)



La operación prolongada puede causar el aburrimiento y fatigar el operador afectando la operación segura. Tome las roturas de trabajo programadas para ayudar a prevenir estas condiciones de funcionamiento potencialmente deterioradas. Nunca funcione el instrumento y el tractor en un estado mental fatigado o agujereado que deteriore la operación apropiada y segura. (SG-32 SP)



Tenga mucho cuidado al subir sobre el instrumento y realizar reparaciones, mantenimiento y al quitar el material acumulado. Esté parado solamente en superficies planas sólidas para asegurar el buen pie. Utilice una escala o un soporte levantado para tener acceso a los puntos altos que no se pueden alcanzar de nivel del piso. El deslizarse y el caer pueden causar lesión o muerte seria. (SG-33 SP)



Evite el contacto con las superficies calientes incluyendo tanques de aceite hidráulico, bombas, motores, válvulas y conexiones de la manguera. Releve la presión hidráulica antes de realizar mantenimiento o reparaciones. Utilice los guantes y la protección de ojo al mantener componentes calientes. Entre en contacto con una superficie caliente o el líquido puede causar lesión seria de quemaduras o de escaldar. (SG-34 SP)

SEGURIDAD

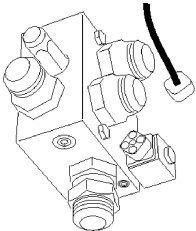
Reemplace las láminas dobladas o quebradas con láminas nuevas. NUNCA PROCURE ENDEREZARSE O SOLDAR CON AUTÓGENA EN LAS LÁMINAS PUESTO QUE ESTO AGRIETARÁ PROBABLEMENTE O DAÑARÁ LA LÁMINA CON FALTA SUBSECUENTE Y LESIÓN SERIA DE LAS LÁMINAS LANZADAS.. (SGM-10 SP)



Releve la presión hidráulica antes de hacer cualquier mantenimiento o reparación de trabajo sobre el instrumento. Ponga la cabeza del cortacéspedes en la tierra o apoyada con seguridad en bloques o soportes, desuna el PTO, y apage el motor. Empuje y estire las palancas de mando varias veces para relevar la presión antes de comenzar cualquier mantenimiento o reparación. (SBM-6 SP)



Siempre desconecte las puntas de los cables de la valvula solenoide de la podadora antes de hacerle mantenimiento al tractor o la podadora. Tenga mucha precaucion cuando este trabajando con la podadora o el tractor. El motor del tractor debe estar completamente detenido antes de empezar a trabajar en el tractor o la podadora. Las aspas de la podadora pueden ser encendidas repentinamente y posiblemente desmembrarlo, causarle dano, o incluso la muerte. (SBM-12 SP)



No de marcha atras con este accesorio. Al marchar hacia atras podría causar daños a la máquina o sus componentes. (S3PT-4 SP)



Tenga mucho cuidado al bajar o desplegar las alas del instrumento. Asegúrese de que no haya personas cerca o debajo de las alas. Deje espacio suficiente alrededor del instrumento al plegar o desplegar las alas. Use extrema precaución alrededor de edificios o líneas de energía elevadas. (S3PT-05)



Existen peligros evidentes y ocultos en el funcionamiento de este instrumento como en todos los equipos mecánicos y equipo remolcado. RECUERDE! Esta máquina se utiliza frecuentemente en condiciones de terreno áspero que incluyen hierbas altas, las malas hierbas, barrancos, pozos, pistas, y obstáculos ocultos. Lesiones graves o hasta la muerte puede ocurrir a menos que el cuidado se tome para asegurar la seguridad del operador y personas presentes en el área. No opere esta máquina con nadie en el área. (S3PT-07 SP)



Este instrumento es más amplio que el Tractor. Tenga cuidado funcionando o transportando este equipo para impedir el instrumento de entrar a golpear postes de signo, barandillas, estribos concretos y otros objetos sólidos. Tal impacto podría hacer que el instrumento y el Tractor girar violentamente y causar la pérdida de control de conducir, herida seria, o hasta muerte. Nunca permita que el instrumento se ponga en contacto con obstáculos. (S3PT-12)



Nunca interfiera con las calibraciones hidráulicas de fábrica. Cualquier cambio de calibración podría causar un fracaso del equipo y puede causar la herida. (SBH-13 SP)



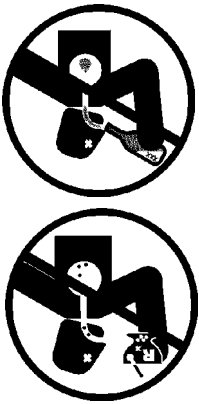
# SEGURIDAD

**PELIGRO**

Nunca permita que los niños jueguen en o alrededor del tractor o del instrumento. Los niños pueden resbalarse o caerse del equipo y ser dañados o ser matados. Los niños pueden hacer el instrumento cambiar de puesto y caer machucándose ellos mismos y a otros. (SG-25 SP)

**PELIGRO**

NUNCA utilice las drogas o el alcohol inmediatamente antes de o mientras que funciona el tractor y el instrumento. Las drogas y el alcohol afectarán la vigilancia y la coordinación de un operador y por lo tanto afectará la capacidad del operador de funcionar el equipo con seguridad. Antes de funcionar el tractor o el instrumento, un operador en receta o medicación de tienda debe consultar a un profesional médico con respecto a cualquier efecto secundario de la medicación que obstaculizaría su capacidad de funcionar el equipo con seguridad. Permita NUNCA con conocimiento que cualquier persona funcione este equipo cuando se deteriora su vigilancia o coordinación. Lesión o la muerte al operador podrían resultar si el operador está bajo influencia de drogas o del alcohol. (SG-27 SP)



**PELIGRO**

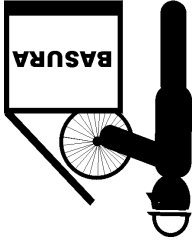
Funcione los controles del tractor y/o del instrumento solamente mientras que está asentado correctamente en el asiento del tractor con el cinturón de seguridad alrededor de usted. El movimiento inadvertido del tractor o del instrumento puede causar lesión o muerte sería. (SG-29 SP)

**ADVERTENCIA**

Sigue sólo en condiciones donde usted tiene la visibilidad clara en el día o con la iluminación artificial adecuada. Nunca siga en oscuridad o condiciones con niebla donde usted no puede ver claramente al menos 100 yardas (90 m) en el frente y a los lados del tractor y cortacésped. Asegúrese que usted puede ver claramente e identificar a personas presentes, pendientes pronunciados, zanjas, bajadas, obstrucciones elevadas, líneas de energía, escombros y objetos extranjeros. Si usted es incapaz de ver claramente éstos artículos discontinúan de segar. (SGM-1 SP)

**ADVERTENCIA**

El cuidado extremo debe ser tomado al funcionar cerca de objetos flojos tales como grava, rocas, alambré, y otra ruina. Examine el área antes de cortar. Los objetos extranjeros se deben quitar del sitio para prevenir daño de la máquina y/o lesión o aún muerte. Cualquier objeto que no pueda ser quitado se debe marcar claramente y evitar cuidadosamente por el operador. Pare el rotatorio inmediatamente si las láminas pegan un objeto extranjero. Repare todo el daño y este seguro que el rotor o el portador de la lámina es equilibrado antes de reasumir la siega. (SGM-5 SP)



**ADVERTENCIA**

Corte a la velocidad que usted puede funcionar con seguridad y controlar el tractor y el cortacésped. Cortar a velocidad segura depende de la condición del terreno y tipo de la hierba, densidad, y altura del corte. La velocidad de tierra normal es de 0 a 5 mph. Utilice las velocidades lentas al funcionar en pendientes pronunciados, zanjas, bajadas, obstrucciones elevadas, líneas de energía, o cuando la ruina y los objetos extranjeros deben ser evitados. (SGM-7 SP)

Sección de Seguridad 1-7

KSB6 08/20

© 2020 Alamo Group Inc.

SAFETY

SEGURIDAD



Transporte solamente a las velocidades seguras. Los accidentes y lesiones serios pueden resultar de funcionar este equipo a las velocidades inseguras. Entienda el tractor y el implemento y cómo funciona antes de transportar en las calles y las carreteras. Asegurese de que el manejo y los frenos del tractor estén en buena condición y funcionen correctamente.

Antes de transportar el tractor y el instrumento, determine las velocidades de transporte seguras para usted y el equipo. Asegurese que cumpla con las reglas siguientes:

- Pruebe el tractor a una velocidad reducida y aumente la velocidad lentamente. Aplique los frenos suavemente para determinar las características que paran el tractor y el implemento. Aumentando la velocidad del tractor la distancia para parar que aumenta. Determine la velocidad máxima de transporte segura para usted y este equipo.
- Pruebe el equipo a una velocidad reducida en dar vuelta. Aumente la velocidad a dar vuelta solamente después que usted determine que es seguro funcionar a una velocidad más alta. Utilice el cuidado extremo y reduzca su velocidad al dar vuelta agudamente para evitar que el tractor y el implemento se volteen. Determine la velocidad máxima para dar una vuelta segura para usted y este equipo antes de funcionar en los caminos o la tierra desigual.
- Transporte solamente el tractor y el implemento a las velocidades que usted ha determinado son seguras y que permiten que usted controle correctamente el equipo

Esté enterado de las condiciones de funcionamiento. No funcione el tractor con los frenos débiles o defectuosos. Al funcionar abajo de una colina o en mojado o lloviznos caminos, la distancia que frena aumenta: utilice el cuidado extremo y reduzca su velocidad. Al funcionar en uso de tráfico siempre funcione las luces que destellan y reduzca su



Siempre lea con cuidado y obedezca completamente las instrucciones de fabricantes al manejar el petróleo, los solventes, los limpiadores, y cualquier otro agente químico. (SG-22 SP)



Nunca funcione el motor del tractor en un edificio cerrado o sin la ventilación adecuada. Los humos del tractor pueden ser peligrosos a su salud. (SG-23 SP)



GUARDE LEJOS DE ELEMENTOS QUE ROTAN para prevenir el enredo y lesión seria es posible o hasta muerte. (SG-24 SP)





LA EXPOSICIÓN PROLONGADA AL FUERTE RUIDO PUEDE CAUSAR PÉRDIDA DE OÍDO PERMANENTE! Los tractores con o sin un instrumento unido pueden ser bastante ruidosos y causar pérdida de oído permanente. Recomendamos que usted usa siempre la protección de oído si el ruido en la posición del operador excede 80db. El ruido de 85db excesivo sobre un período de tiempo extendido causará pérdida de oído severa. El ruido 90db excesivo adyacente al operador sobre un período de tiempo extendido causará pérdida de oído permanente o total. NOTA: La pérdida de oído de ruido fuerte [ de los tractores, de las sierras de cadena, de los radios, y de algún otro origen cerca del oído ] es acumulativa sobre un curso de la vida sin esperanza de la recuperación natural.. (SG-17 SP)



Nunca procure lubricar, ajustar, o quitar el material del instrumento mientras que está en el movimiento o mientras que el motor del tractor está funcionando. Asegúrese de que el motor del tractor esté apagado antes de trabajar en el instrumento. (SG-20 SP)



Examine todas las piezas móviles para saber si hay desgaste y sustitúyalas periódicamente cuando es necesario por las piezas de servicio autorizadas. Busque sujetadores flojos las piezas desgastadas o ajustes goteros y flojos. Asegúrese de que todos los pernos estén asegurados correctamente. Lesión seria puede ocurrir de no mantener esta máquina en buena orden de funcionamiento. (SG-21 SP)



No ponga las manos o los pies cerca de la barra cortadora. El contacto de lámina puede dar lugar a lesión seria. Permanezca lejos hasta que todo el movimiento ha parado y el cortacéspedes se bloquee con seguridad para arriba. (SSM-1 SP)

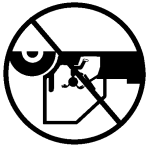




SEGURIDAD

PELIGRO

Nunca permita que niños operen, monten en, o acercarse al Tractor o implemento. Usualmente, los niños de 16-17 años que son maduros y responsables pueden operar el implemento con la supervisión adulta, si ellos han leído y entienden los Manuales del Operador, sídos entrenado en la operación apropiada del tractor e implemento, y son físicamente bastante grandes para alcanzar y operar los mandos fácilmente. (SG-11 SP)



ADVERTENCIA

No monte el Tractor mientras el tractor se esta moviendo. Monte el Tractor sólo cuando el Tractor y todas las partes de movimiento estan completamente paradas(SG-12 SP)



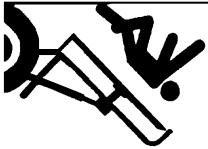
PELIGRO

Comience el Tractor solamente cuando esta correctamente asentado en el asiento de Tractor. Comensando el tractor en marcha puede causar la herida o la muerte. Lea el manual de operadores de Tractor para instrucciones de comienzo apropiado. (SG-13 SP)



PELIGRO

Nunca trabaje debajo del instrumento, la estructura, o cualquier componente levantado a menos que el instrumento se sostenga o se bloquee con seguridad para evitar caer repentino o inadvertido que podria causar lesión o aun muerte seria (SG-14 SP)



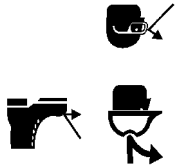
ADVERTENCIA

No opere este Equipo si el petróleo hidráulico o combustible se escapa. El petróleo y el combustible son explosivos y su presencia podria presentar un riesgo. No compruebe agujeros con sus manos! Las corrientes de petróleo de alta presión por rupturas en la línea podrian penetrar la piel y causar el daño de tejido incluso la gangrena. Para comprobar un agujero de manguera, APAGE EL MOTOR de unidad y remueva toda la presión hidráulica. Lleve puestos guantes impermeables de petróleo, lentes de seguridad y use el Cartón para comprobar pruebas de agujeros de petróleo. Si usted sospecha un agujero, QUITE LA MANGUERA y someta a prueba a su Vendedor. Si el petróleo penetra realmente la piel, haga tratar la herida inmediatamente por un médico entendido y experto en este procedimiento. (SG-15 SP)



ADVERTENCIA

El operador y todo el personal de la ayuda deben usar los sombreros duros, los zapatos de seguridad, las gafas de seguridad, y la protección de oído apropiada siempre para la protección contra lesión incluyendo lesión contra los artículos lanzados por el equipo. (SG-16 SP)



**PELIGRO**

Nunca funcione el tractor o el instrumento hasta que usted ha leído y entienda totalmente este manual, el manual del operador del tractor, y cada uno de los mensajes de seguridad encontrados en el manual o en el tractor y el instrumento. Aprenda cómo parar el motor del tractor repentinamente en una emergencia. Nunca permita personal inexperto o inexperienced para funcionar el tractor y el instrumento sin la supervisión. Cerciórese de que el operador haya leído y que haya entendido completamente los manuales antes de la operación. (SG-4)

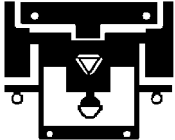


**ADVERTENCIA**

Mantenga siempre las calcomanías de seguridad en buenas condiciones legibles. Si las calcomanías faltan, dañado, o ilegible, obtenga e instale las etiquetas del reemplazo inmediatamente. (SG-5)

**ADVERTENCIA**

Asegúrese que el signo "vehículo móvil lento" (SMV) esté instalado en tal manera que sea claramente visible y legible. Al transportar el equipo, funcione las luces que destellan del tractor y siga todas las regulaciones de tráfico local. (SG-6)



**ADVERTENCIA**

Funcione este equipo solamente con un tractor equipado de un sistema rodar-sobre-protector aprobado (DISPOSITIVOS DE PROTECCIÓN EN CASO DE VOLCAMIENTO). Use siempre el cinturón de seguridad. Lesión o aún la muerte sería poder resultar de caerse del tractor — particularmente durante un volumen de ventas cuando el operador podría ser fijado debajo de los DISPOSITIVOS DE PROTECCIÓN EN CASO DE VOLCAMIENTO. (SG-7)

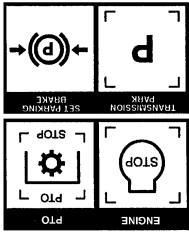


**ADVERTENCIA**

No modifique ni altere este instrumento. No permita que cualquier persona modifique o que altere este instrumento, cualquiera de sus componentes o ninguna función del instrumento. (SG-8)

**PELIGRO**

ANTES de salir del asiento del tractor, aplique el freno y/o fije la transmisión del tractor en engranaje del estacionamiento, desembragar el PTO, pare el motor, quite siempre la llave, y espere que todas las piezas móviles paren. Coloque la palanca del cambio del tractor en un engranaje bajo o del engranaje de estacionamiento para prevenir el tractor de rodar. Nunca desmonte un tractor que se esté moviendo o mientras que el motor está funcionando. Funcione los controles de tractor desde el asiento del tractor solamente. (SG-9)



**PELIGRO**

Nunca permita que los niños u otras personas monten en el tractor o el instrumento. El caerse puede resultar en lesión o muerte sería. (SG-10)



# SEGURIDAD

## INSTRUCCIONES DE SEGURIDAD Y PRÁCTICAS GENERALES

El mejor operador es un operador cuidadoso. La seguridad es de importancia fundamental para el fabricante, y también debería serlo para el propietario u operador. La mayoría de los accidentes se pueden evitar prestando suma atención al equipo, al ambiente circundante, y tomando algunas precauciones. La primera sección de este manual incluye una lista de Mensajes de Seguridad que deben observarse para contribuir a la protección del operador y otras personas frente a lesiones o la muerte. Lea con atención estos Mensajes de Seguridad antes de ensamblar, operar o reparar este implemento. Este equipo sólo debe ser operado por personas que hayan leído el manual, responsables y calificadas, que sepan cómo hacerlo de manera responsable.

El Símbolo de Alerta de Seguridad se utiliza en combinación con una Señal Verbal, tal como la que se muestra a continuación, en todo este manual y en los autoadhesivos adheridos a los equipos. El Símbolo de Alerta de Seguridad significa:

“¡ATENCIÓN! MANTÉNGASE ALERTA! SU SEGURIDAD ESTÁ EN JUEGO!” El Símbolo y la Señal Verbal tienen el objetivo de advertir al propietario/operador sobre un riesgo inminente y el grado de lesión que se puede producir al operar este equipo.

**Adopte todas las medidas habituales para trabajar en forma segura y, sobre todo, recuerde que la seguridad depende de USTED. Sólo USTED puede impedir una lesión grave o la muerte a causa de prácticas no seguras.**

Indica una situación peligrosa inminente que, de no ser evitada, **OCCASIONARÁ la MUERTE O UNA LESIÓN MUY GRAVE.**

Indica una situación peligrosa inminente que, de no ser evitada, **PODRÍA OCCASIONAR la MUERTE O UNA LESIÓN MUY GRAVE.**

Indica una situación peligrosa inminente que, de no ser evitada, **PODRÍA OCCASIONAR UNA LESIÓN MENOR.**

Indica información considerada importante, pero no relacionada con riesgos (por ejemplo, mensajes relacionados con daños a la propiedad).

**NOTA:** Identifica aspectos de particular interés para lograr una operación o reparación más eficiente y conveniente.

**LEA CON ATENCIÓN Y RESPETE** los siguientes Mensajes de Seguridad. Si no se siguen cuidadosamente las advertencias e instrucciones indicadas en este Manual y en los Mensajes de Seguridad del implemento, se pueden producir lesiones graves o la muerte. Siempre siga las instrucciones de este manual y use el sentido común para evitar situaciones peligrosas.



Los pictogramas se utilizan a lo largo de este manual para ayudar a que su atención visual se centre en los problemas de seguridad.

PELIGRO DE SEGURIDAD	PROCEDIMIENTO DE EVITACIÓN	PREVENCIÓN DE SEGURIDAD
El pictograma rodeado por un triángulo indica un peligro de seguridad que debe evitarse. EJEMPLO:  Equipo en contacto con líneas eléctricas aéreas	El pictograma por sí mismo o dentro de una caja indica un procedimiento de evitación que se debe seguir para evitar lesiones. EJEMPLO:  Apague siempre el motor y retire la llave antes de trabajar en el equipo.	Un círculo con una barra indica una acción que está prohibida. EJEMPLO:  No FUMAR

**NOTA:** Si desea obtener una traducción de esta sección de seguridad en alguno de los siguientes idiomas, comuníquese con: *Translations, a la dirección 1502 E. Walnut Street Seguin, TX 78155; Fax: (830) 372-9529; La Sección de Seguridad está disponible en español, portugués, francés, alemán, ruso. PN 6501 SP*

# SECCIÓN DE SEGURIDAD

Sección de Seguridad 1-1



**Instrucciones de operaciones antes de la entrega del DISTRIBUIDOR al CLIENTE**

El distribuidor deberá informar al comprador de este producto las condiciones, disposiciones y procedimientos de garantía aplicables; informar la responsabilidad del comprador de capacitar a sus operadores para la operación segura; revisar el contenido del Manual del Operador, incluido el equipo de seguridad, la operación segura y el mantenimiento; y revisar las Señales de Seguridad que se encuentran en el implemento (y en el tractor, de ser posible).

**IMPLEMENTOS:** He explicado que los deflectores, protectores de cadena o faldones sólidos se deben mantener en buenas condiciones de reparación y se deben instalar, excepto en zonas donde personas, vehículos, ganado u otros bienes no corran peligro por objetos arrojados, y en los casos en que dichos equipos de seguridad impedirían un desempeño razonable de la cortadora en su tarea asignada.

**LÍNEAS DE CONDUCCIÓN:** Me he asegurado de que todos los protectores de líneas de conducción, de caja de engranajes y otros están en buenas condiciones de reparación y firmemente sujetos para prevenir lesiones por enredo u objetos arrojados.

**MÁQUINAS HIDRÁULICAS:** He explicado la necesidad de usar aceite hidráulico limpio, cambiar los filtros según las instrucciones, detener filtraciones, prevenir daños por operar con aceite demastado caliente, cuidar las mangueras, usar mangueras del tipo correcto, mantener la presión operativa especificada y prevenir el posible riesgo de que el aceite penetre en la piel.

**IMPLEMENTOS PLEGABLES:** He explicado que no es posible proteger contra objetos arrojados cuando el cabezal está elevado del suelo y que el operador es responsable de verificar que no existan personas en las inmediaciones. He explicado que el brazo o cabezal de cortadora elevado puede entrar en contacto con obstrucciones elevadas y dañar cables y líneas telefónicas, y posiblemente causar lesiones. He explicado que el brazo o cabezal extendido, o el brazo retraído, puede entrar en contacto con cables de alimentación y causar lesiones o la muerte por electrocución, y que el operador es responsable de evitar dichos riesgos.

**SERVICIO ANTES DE LA ENTREGA  
VERIFIQUE Y AJUSTE O LUBRIQUE SEGÚN SEA NECESARIO**

Consulte los detalles en el Manual del Operador  
Inspección realizada – Garantía y procedimientos de seguridad explicados – Instalación realizada

**LUBRICACIÓN E HIDRÁULICA**

**ELEMENTOS DE SEGURIDAD**

- ☐ Caja de engranajes (niveles de aceite)
- ☐ Nivel de aceite hidráulico (tanque externo)
- ☐ Nivel de aceite hidráulico del tractor
- ☐ Mangueras hidráulicas (no retorcidas y ajustadas)
- ☐ Propulsor de bomba frontal (conjunto ajustado y eje bien alineado)
- ☐ Cortadora
- ☐ Nivel y altura de corte de la cortadora ajustados
- ☐ Cojinetes del eje de corte lubricados
- ☐ Todas las piezas metálicas bien ajustadas

**ACCESORIOS E INSTALACIÓN**

- ☐ Deflectores frontales y traseros
  - ☐ Sentido de giro de las hojas correcto
  - CONEXIONES DE CORTADORA A TRACTOR**
  - ☐ Pivote y conexiones de bastidor en A
  - ☐ Altura de eje (ajustar)
  - ☐ Altura de corte (ajustar)
  - ☐ Verificación de pre-operación de kit de montaje
  - ☐ Aleta de cortadora (ajustar nivel con el centro)
  - ☐ Aleta de cortadora (verificar operación de elevación correcta)
  - ☐ Piezas metálicas de montaje bien ajustadas
- comprador
- ☐ Se mostró el Video de Seguridad de Cortadora AEM al
  - ☐ Manual de Seguridad de Cortadora AEM (entregado en porta manual)
  - ☐ Manual de Seguridad de Línea de Conducción ADMA (entregado)
  - ☐ Cadena de remolque de seguridad (instalada)
  - ☐ Gato con lengüeta (instalación y operación)
  - ☐ Emblema S.M.V. (instalado de ser necesario)
  - ☐ Protector de TDF del tractor (instalado)
  - ☐ Manual del Operador (entregado)
  - ☐ Autoadhesivos de seguridad (colocados)
  - ☐ (ajustar y poner en marcha)
  - ☐ Embrague de línea de conducción (limitador de ajuste)
  - ☐ Protectores (operación e instalación)

**Terrain King está dispuesto a suministrar un (1) Video de Prácticas de Seguridad para Cortadoras AEM**

Por favor enviar:

- ☐ Video de Seguridad para el Operador de Cortadoras AEM/FEMA – formato VHS
- ☐ Video de Seguridad para el Operador de Cortadoras AEM/FEMA – formato DVD
- ☐ Manual del Operador de la Cortadora
- ☐ Manual de Seguridad del Operador de la Cortadora AEM

Nombre del solicitante: \_\_\_\_\_

Dirección del solicitante: \_\_\_\_\_

Ciudad \_\_\_\_\_

Estado \_\_\_\_\_

Código postal \_\_\_\_\_

Modelo de cortadora: \_\_\_\_\_

Fecha de compra: \_\_\_\_\_

Nombre del distribuidor: \_\_\_\_\_

Dirección del distribuidor: \_\_\_\_\_

AEM Video Services

1502 E. Walnut Street

Seguin, TX 78155

☐ enviar por fax a:

(830) 372-9529

☐ enviar por correo electrónico a:

AEMVideo@alamo-group.com

A fin de reducir la tasa de accidentes y mejorar la operación segura de las cortadoras, Terrain King se ha asociado con otros fabricantes de la industria para desarrollar el video y la guía de Prácticas de Seguridad para Cortadoras Industriales y Agrícolas AEM/FEMA.

El video explica a los operadores de tractores y cortadoras las prácticas seguras que deben adoptar cuando utilizan cortadoras industriales y agrícolas. Es importante que todos los operadores de cortadoras aprendan cómo operar sus equipos de corte y puedan reconocer los posibles peligros que pueden surgir al operar una cortadora. Este video, en conjunto con el manual del operador de la cortadora y los mensajes de advertencia que se encuentran en la cortadora, serán muy útiles para complementar este aprendizaje tan importante.

Es posible que su distribuidor autorizado de *Terrain King* le haya mostrado este video y le haya entregado una copia en DVD cuando adquirió su cortadora. Si usted o algún operador de cortadora no vio el video: mire el video, lea este Manual del Operador, y complete la Guía del Video antes de operar su cortadora nueva. Si no comprende alguna de las instrucciones del video o del manual del operador, o si tiene alguna pregunta acerca de la operación segura, comuníquese con su supervisor, con el distribuidor o con Terrain King.

Si desea recibir una copia del video en VHS, envíe un mensaje de correo electrónico a [AEMVideo@alamo-group.com](mailto:AEMVideo@alamo-group.com) o un fax al (830) 372-9529, o envíe por correo una copia rellena del formulario que se encuentra al dorso de esta página a AEM VHS Video 1502 E Walnut Street, Seguin, TX 78155, y solicite la versión en VHS. Indique su nombre, dirección postal, modelo de cortadora y número de serie.

Cada uno de los operadores debe recibir capacitación para cada equipo (tractor y cortadora), comprender el uso previsto, y comprender los posibles peligros antes de operar el equipo.

La información y material mencionado en la información anterior junto con el Manual de Operador puede asistir en cumplir con los requisitos de OSHA para el entrenamiento anual del Operador.

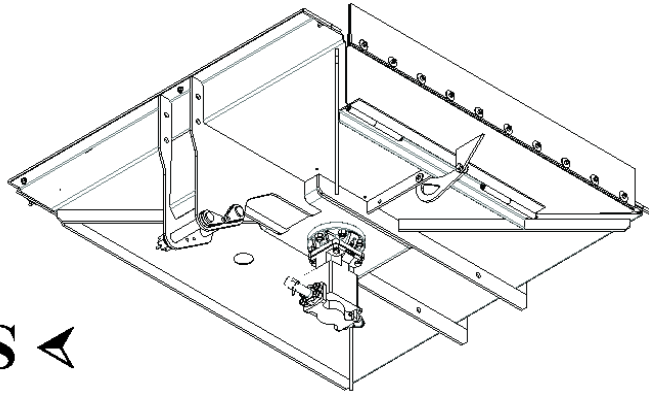
## REQUISITOS DE ENTRENAMIENTO DEL OSHA

Los siguientes requisitos de entrenamiento se an toma del Título 29, código de la pieza de regulaciones federales 1928.57 (a) (6), [www.osha.gov](http://www.osha.gov)

Instrucciones del operador. A la hora de la asignación inicial y por lo menos anualmente después de eso, el empleador mandará a cada empleado quien opera un tractor agrícola o implemento en las prácticas de operación segura y el mantenimiento de el equipo con el cual el empleado este, o estará implicado y de cualquier otras prácticas dictados por el ambiente laboral.

**TERRAIN KING**  
Engineering Practical Solutions™

## Entrenamiento de Seguridad Hace la Diferencia



➤ Sea Seguro

➤ Sea Alerto

➤ Sea Vivo

➤ Sea Entrenado

antes de funcionar  
el cortacésped

[www.algqr.com/kvs](http://www.algqr.com/kvs)



Video de Seguridad



Al propietario/operador/distribuidor

Este Manual del Operador es una parte esencial de la operación segura de esta máquina y se debe mantener con la unidad siempre. El implemento incluye un porta manual donde se puede guardar el manual de manera adecuada. Si el manual se extravía o se daña, puede solicitar otra copia sin cargo a un distribuidor autorizado de *Terrain King* o descargarlo del sitio web de *Terrain King* ([www.terrainking.com](http://www.terrainking.com)).

ANTES DE COMENZAR LEA, COMPRENDA Y SIGA la información incluida en este manual, el Manual de Seguridad de la Cortadora AEM y el manual del operador del tractor para conocer cómo operar la máquina y realizar tareas de servicio correctamente. De lo contrario, podría sufrir lesiones u ocasionar lesiones a terceros. Todos los implementos con partes móviles son potencialmente peligrosos. Cada esfuerzo ha sido hecho para asegurar que la máquina esté segura, pero los operadores deben evitar entrar en prácticas peligrosas y seguir las instrucciones escritas que son proporcionadas. El fabricante ha diseñado este implemento para ser usado con todos sus equipos de seguridad correctamente sujetados para minimizar la probabilidad de accidentes.

LA SEGURIDAD PRIMERO. Lea con atención la totalidad de la sección de seguridad de este manual antes de operar el equipo. No permita que nadie opere el equipo sin haber leído y comprendido la totalidad de este manual. Comuníquese con el distribuidor si necesita explicación sobre alguna instrucción que no haya comprendido del todo.

Los cuidados que brinde a su implemento *Terrain King* determinarán en gran medida su satisfacción con el desempeño y la vida útil del equipo. Lea con atención y siga las instrucciones de este manual para comprender cabalmente su nuevo implemento, su uso previsto, y sus requisitos de servicio.

Todas las referencias que se hacen en este manual a derecha, izquierda, frontal, trasero, arriba y abajo corresponden a la perspectiva en el sentido del desplazamiento hacia delante con el implemento correctamente sujetado al tractor.

La información sobre repuestos se encuentra por separado en el Manual de Partes. Las cortadoras *Terrain King* utilizan componentes del sistema equilibrados y coincidentes para porta cuchillas, cuchillas, ejes de corte, hojas, ganchos para hojas, rodillos, componentes de los engranajes, y colletes. Estas partes se fabrican y se prueban según las especificaciones de *Terrain King*. Las partes compatibles no genuinas no siempre cumplen con estas especificaciones. El uso de partes no genuinas puede perjudicar el desempeño de la cortadora, anular la garantía y presentar un riesgo para la seguridad. Use partes genuinas *Terrain King* para ahorrar dinero y maximizar la seguridad.

Para referencia futura, registre el número de modelo y el número de serie de *Terrain King* que ha adquirido.

Distribuidor		Teléfono		Número de Modelo	
Dueño		Fecha de compra:		Número de serie	



## MANUAL DE OPERADOR

**KSB5  
KSB6**  
**Segadora  
De Barra Tipo Hoz**



Vídeo de Seguridad



[www.algqr.com/kvs](http://www.algqr.com/kvs)

Este Manual del Operador es una parte esencial de la operación segura de esta máquina y se debe mantener con la unidad siempre. LEA, ENTIENDA, Y SIGA las Instrucciones de Seguridad y Operación contenidas en este manual antes de operar el equipo.

Importantes instrucciones de operación y las instrucciones de seguridad se encuentran en el video Cortacésped Sobre Seguridad que se puede acceder instantáneamente en el internet en: [www.algqr.com/kvs](http://www.algqr.com/kvs)

C01-Cvr Kubota\_SP

Publicado en 08/20

Parte n°. 37002993751C



FC-SB-0002

**Terrain King**

1502 E. Walnut St.

Seguin, Texas 78155-5202

800-882-5756



[www.algqr.com/kwe](http://www.algqr.com/kwe)

Página Web de Terrain King

