

# SK5BB

Backfill Blade Attachment

## Operator's Manual



Issue 2.0



054-100

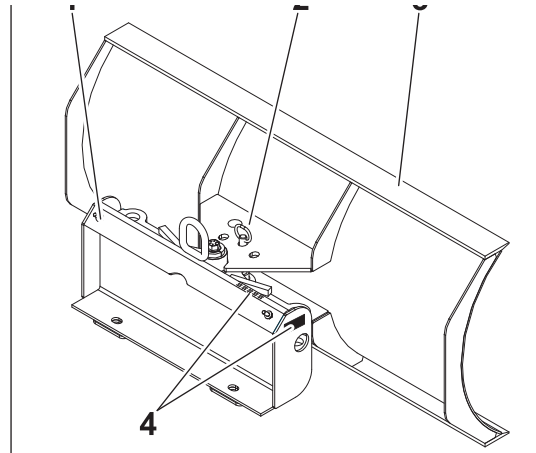
# Overview

## Serial Number/Unit Components

Attachment serial number location and unit components are called out below. Record serial number and date of purchase in spaces provided.

### Manual Swing

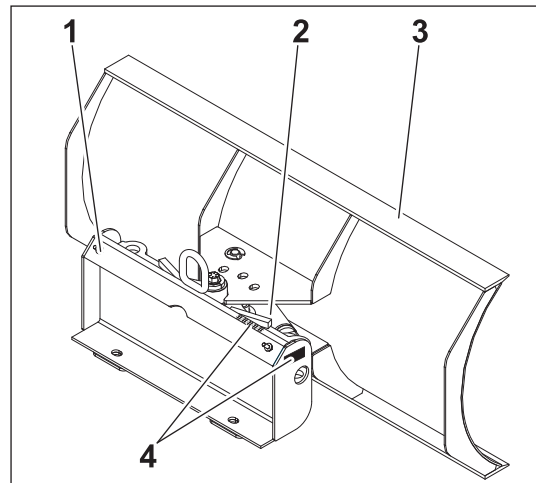
- 1. Receiver plate
- 2. Swing pin
- 3. Blade
- 4. S/N location



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### Hydraulic Swing

- 1. Receiver plate
- 2. Swing cylinder
- 3. Blade
- 4. S/N location



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### Serial Number Record

Date of manufacture	
Date of purchase	
Attachment serial number	

## Intended Use

The SK5BB backfill blade attachment is used for backfilling trenches and basic grading and scraping. A kit is available for converting a manual swing blade to hydraulic swing.

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# Foreword

This manual is an important part of your equipment. It provides safety information and operation instructions to help you use and maintain your Ditch Witch equipment.

Read this manual before using your equipment. Keep it with the equipment at all times for future reference. If you sell your equipment, be sure to give this manual to the new owner.

If you need a replacement copy, contact your Ditch Witch dealer. If you need assistance in locating a dealer, visit our website at [www.ditchwitch.com](http://www.ditchwitch.com) or write to the following address:

The Charles Machine Works, Inc.  
Attn: Marketing Department  
PO Box 66  
Perry, OK 73077-0066  
USA

The descriptions and specifications in this manual are subject to change without notice. The Charles Machine Works, Inc. reserves the right to improve equipment. Some product improvements may have taken place after this manual was published. For the latest information on Ditch Witch equipment, see your Ditch Witch dealer.

Thank you for buying and using Ditch Witch equipment.

## SK5BB Attachment Operator's Manual

Issue number 2.0/OM-7/2010

Part number 054-100

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# Contents

**Overview . . . . . 1**

- Serial Number and Component Locations . . . . . 1
- Intended Use . . . . . 1

**Foreword . . . . . 2**

**Safety . . . . . 5**

- Guidelines . . . . . 5
- Safety Alert Classifications . . . . . 6
- Safety Alerts . . . . . 7
- Emergency Procedures . . . . . 8

**Prepare . . . . . 11**

- Inspect Site . . . . . 11
- Check Supplies and Prepare Equipment . . . . . 11
- Connect Attachment . . . . . 12

**Operate . . . . . 15**

- Attachment Function Overview . . . . . 15
- Operating Procedure . . . . . 17
- Operating Tips . . . . . 18
- Cleanup . . . . . 18
- Storage . . . . . 18

**Service and Specifications . . . . . 19**

- Service . . . . . 19
- Specifications . . . . . 21

**Support . . . . . 23**

- Procedure . . . . . 23
- Resources . . . . . 23

**Warranty . . . . . 24**

# Safety

## Guidelines


Follow these guidelines before operating any jobsite equipment:


- Complete proper training and read operator's manual before using equipment.
- Contact One-Call (888-258-0808) and any utility companies which do not subscribe to One-Call. Have all underground pipes and cables located and marked before operating equipment. If you damage a utility, contact utility company.
- Classify jobsite based on its hazards and use correct tools and machinery, safety equipment, and work methods for jobsite.
- Mark jobsite clearly and keep spectators away.
- Wear personal protective equipment.
- Review jobsite hazards, safety and emergency procedures, and individual responsibilities with all personnel before work begins. Safety videos are available from your Ditch Witch dealer.
- Replace missing or damaged safety shields and safety signs.
- Use equipment carefully. Stop operation and investigate anything that does not look or feel right.
- Do not operate unit where flammable gas is present.
- Contact your Ditch Witch dealer if you have any question about operation, maintenance, or equipment use.


## Safety Alert Classifications

These classifications and the icons defined on the following pages work together to alert you to situations which could be harmful to you, jobsite bystanders or your equipment. When you see these words and icons in the book or on the machine, carefully read and follow all instructions. **YOUR SAFETY IS AT STAKE.**

Watch for the three safety alert levels: **DANGER**, **WARNING** and **CAUTION**. Learn what each level means.

 **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

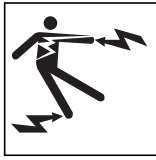
 **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Watch for two other words: **NOTICE** and **IMPORTANT**.

**NOTICE** can keep you from doing something that might damage the machine or someone's property. It can also alert you against unsafe practices.

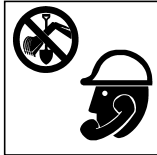
**IMPORTANT** can help you do a better job or make your job easier in some way.

## Safety Alerts



**⚠ DANGER**

Electric shock. Contacting electric lines will cause death or serious injury. Know location of lines and stay away.



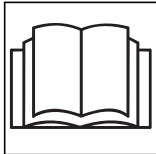
**⚠ WARNING**

Jobsite hazards could cause death or serious injury. Use correct equipment and work methods. Use and maintain proper safety equipment.



**⚠ WARNING**

Moving parts could cut off hand or foot. Stay away.



**⚠ WARNING**

Incorrect procedures could result in death, injury, or property damage. Learn to use equipment correctly.



**⚠ WARNING**

Fluid or air pressure could pierce skin and cause injury or death. Stay away.



## Emergency Procedures

Before operating any equipment, review emergency procedures and check that all safety precautions have been taken.

**EMERGENCY SHUTDOWN** - Turn ignition switch to STOP.

### Electric Strike Description

When working near electric cables, remember the following:

- Electricity follows all paths to ground, not just path of least resistance.
- Pipes, hoses, and cables will conduct electricity back to all equipment.
- Low voltage current can injure or kill. Almost one-third of work-related electrocutions result from contact with less than 440 volts.

Most electric strikes are not noticeable, but indications of a strike include:

- power outage
- smoke
- explosion
- popping noises
- arcing electricity

**If any of these occur, assume an electric strike has occurred.**

## **If an Electric Line is Damaged**

If you suspect an electric line has been damaged and you are **near pedestrian unit**, DO NOT MOVE and do not touch unit. Take the following actions. The order and degree of action will depend upon the situation.

- Warn people nearby that an electric strike has occurred. Instruct them to leave the area and contact utility.
- Do not allow anyone into area until given permission by utility company.

## **If a Gas Line is Damaged**

If you suspect a gas line has been damaged, take the following actions. The order and degree of action will depend on the situation.

- Immediately shut off engine(s), if this can be done safely and quickly.
- Remove any ignition source(s), if this can be done safely and quickly.
- Warn others that a gas line has been cut and that they should leave the area.
- Leave jobsite as quickly as possible.
- Immediately call your local emergency phone number and utility company.
- If jobsite is along street, stop traffic from driving near jobsite.
- Do not return to jobsite until given permission by emergency personnel and utility company.

## **If a Fiber Optic Cable is Damaged**

Do not look into cut ends of fiber optic or unidentified cable. Vision damage can occur.

## **If Machine Catches on Fire**

Perform emergency shutdown procedure and then take the following actions. The order and degree of action will depend on the situation.

- Immediately move battery disconnect switch (if equipped) to disconnect position.
- If fire is small and fire extinguisher is available, attempt to extinguish fire.
- If fire cannot be extinguished, leave area as quickly as possible and contact emergency personnel.



# Prepare

## Inspect Site

Inspect jobsite before transporting equipment. Check for the following:

- changes in elevation such as hills or other open trenches
- obstacles such as buildings, railroad crossings, or streams
- traffic
- access
- soil type and condition

## Check Supplies and Prepare Equipment

### Supplies

- personal protective equipment, such as hard hat and safety glasses

### Condition and Function

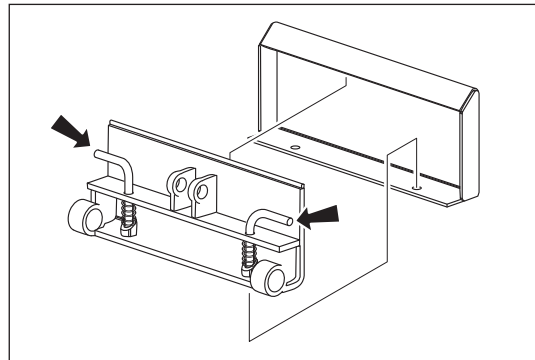
- blade
- hoses and valves
- signs

# Connect Attachment

## Attachment

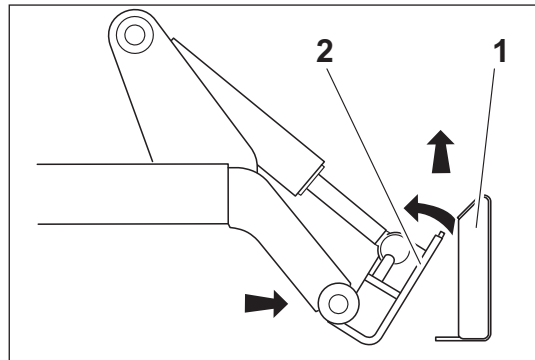
**IMPORTANT:** Before connecting attachment to loader, ensure that mount and receiver plates are free of dirt and debris.

1. Position attachment on level surface with enough space behind it to accommodate loader.
2. Ensure that lock pin handles (shown) on mount plate are turned away from center of attachment.
3. Start engine.



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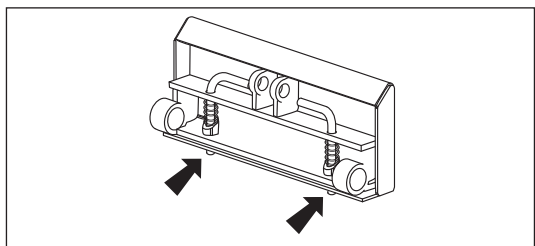
4. Tilt mount plate (2) forward.
5. Position mount plate in the upper lip of the receiver plate (1) on attachment.
6. Raise lift (loader) arms while tilting back mount plate.



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**IMPORTANT:** Attachment should be raised enough to clear the ground. Mount plate should be tilted back fully.

7. Turn ignition switch off and remove key.
8. Rotate lock pin handles toward center of mount plate to secure attachment to lift plate.



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**NOTICE:** To ensure proper connection, verify that bottoms of lock pins are visible under attachment receiver plate (shown).

## Hydraulic Hoses

If attachment requires hydraulic power for operation, connect hydraulic hoses.



**WARNING** Fluid or air pressure could pierce skin and cause injury or death. Stay away.

### NOTICE:

- Escaping pressurized fluid can cause injury or pierce skin and poison.
- Before disconnecting a hydraulic line, turn engine off and operate all controls to relieve pressure. Lower, block, or support any raised component with a hoist. Cover connection with heavy cloth and loosen connector nut slightly to relieve residual pressure. Catch all fluid in a container.
- Before using system, check that all connections are tight and all lines are undamaged.
- Fluid leaks can be hard to detect. Use a piece of cardboard or wood, rather than hands, to search for leaks.
- Wear protective clothing, including gloves and eye protection.
- If you are injured, seek immediate medical attention from a doctor familiar with this type of injury.

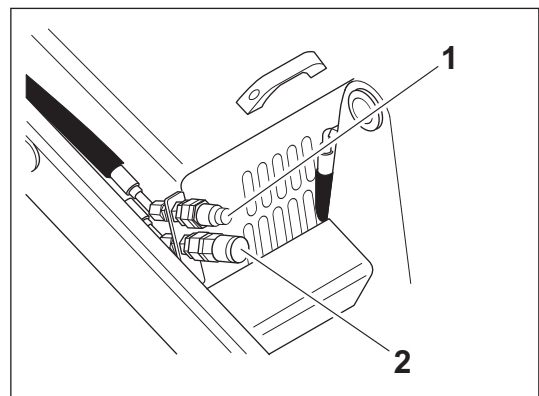


**CAUTION** Hot parts may cause burns. Do not touch until cool.

**NOTICE:** Hydraulic couplers, hoses and fluid may be hot. Wear gloves when connecting and disconnecting hydraulic hoses and wait until unit has cooled before touching hydraulic components.

1. Cycle attachment drive (auxiliary) control to relieve residual pressure at hydraulic couplers.
2. Remove dirt and debris from hydraulic couplers.
3. Connect male coupler on attachment to female coupler (2) on unit.
4. Connect female coupler on attachment to male coupler (1) on unit.

**IMPORTANT:** Loader shown is the Ditch Witch SK500. Hydraulic couplers may be oriented differently on other manufacturers' loaders.



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5. Ensure that connections are secure by pulling on hoses.

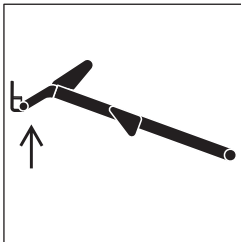


# Operate

## Attachment Function Overview

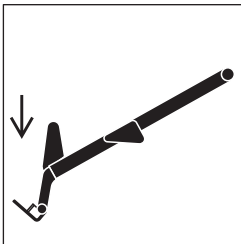
**IMPORTANT:** Refer to loader operator's manual for proper control movement to achieve desired attachment movement.

### Attachment Function



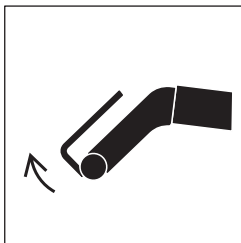
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To raise blade, raise lift (loader) arms.



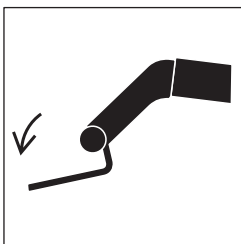
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To lower blade, lower lift (loader) arms.



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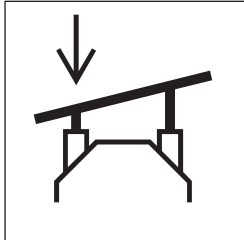
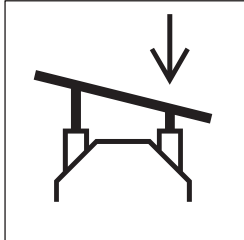
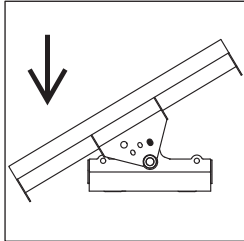
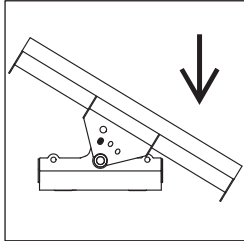
To curl blade up, tilt mount plate up.



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To curl blade down, tilt mount plate down.

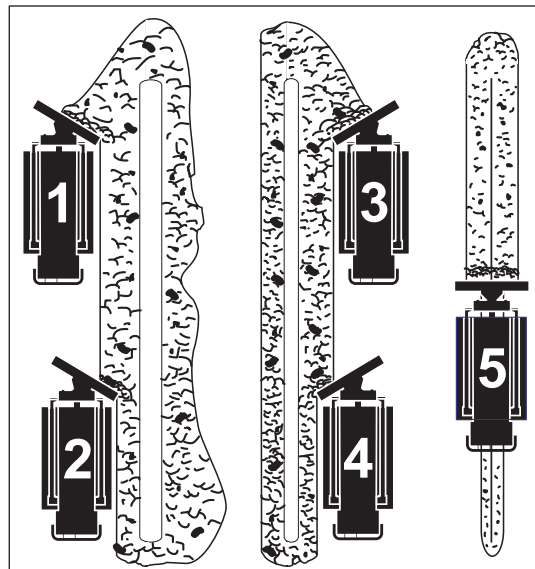


Attachment Function	
 <p>c00ic027c.eps</p>	<p>To swing blade left (hydraulic swing), engage attachment drive (auxiliary) control in reverse.</p>
 <p>c00ic028c.eps</p>	<p>To swing blade right (hydraulic swing), engage attachment drive (auxiliary) control in forward.</p>
 <p>c00ic029c.eps</p>	<p>To swing blade left (manual swing), place pin in hole on right.  <b>IMPORTANT:</b> To lock swing position, verify that pin goes through all four ears and ball on bottom of pin engages below lower ear.</p>
 <p>c00ic030c.eps</p>	<p>To swing blade right (manual swing), place pin in hole on left.  <b>IMPORTANT:</b> To lock swing position, verify that pin goes through all four ears and ball on bottom of pin engages below lower ear.</p>

## Operating Procedure

### Backfilling

1. Use track drive controls to position loader at end of trench, several feet from spoils. Aim loader at outer edge of spoils.
2. Angle blade as needed.  
With hydraulic swing, use attachment drive (auxiliary) control to position blade.  
With manual swing, stop loader engine and manually position blade.
3. Use lift (loader) arm control to adjust backfill blade to fit land contour.
4. Use track drive controls to drive forward and move outer edge of spoils toward trench. Take two or more passes at spoils rather than moving all spoils at once.
5. Repeat on other side of trench, if necessary.
6. Use lift (loader) arms control to engage float and make final pass over trench.



### Grading/Scraping

1. Use track drive controls to move loader toward pile of material.
2. Position blade as needed.  
With hydraulic swing, use attachment drive (auxiliary) control to position blade.  
With manual swing, stop loader engine and manually position blade.
3. Use lift (loader) arm control to lower blade to ground level.
4. Use track drive controls to move loader slowly forward.

## **Operating Tips**

- Keep bystanders clear of work area.
- Do not walk or work under raised attachments unless lift (loader) arms are securely supported.
- Drive up or down, not across, slopes.
- Avoid sudden starts and stops.

## **Cleanup**

Spray water onto attachment to remove dirt and mud.

Make sure all tools and accessories are loaded on trailer.

## **Storage**

Store attachment in a clean, dry place. Cover attachment to keep it clean.

# Service and Specifications

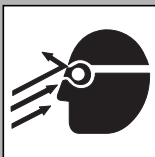
## Service

### 10-Hour

Task	Notes
Check hydraulic hoses and fittings (with hydraulic swing)	
Check condition of backfill blade	

### Check Hydraulic Hoses and Fittings

Check hydraulic hoses for leaks every 10 hours.



**⚠ WARNING** Fluid or air pressure could pierce skin and cause injury or death. Stay away.

#### NOTICE:

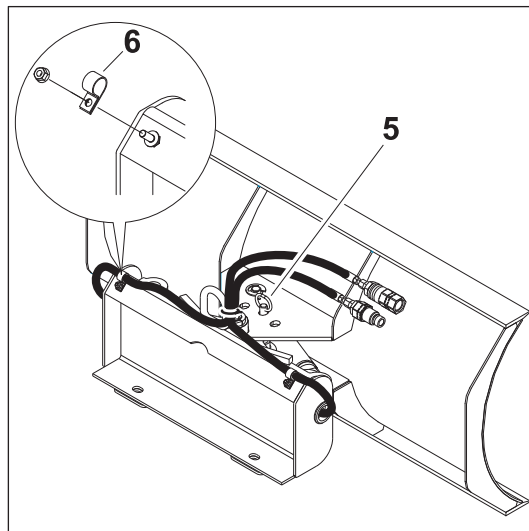
- Escaping pressurized fluid can cause injury or pierce skin and poison.
- Before disconnecting a hydraulic line, turn engine off and operate all controls to relieve pressure. Lower, block, or support any raised component with a hoist. Cover connection with heavy cloth and loosen connector nut slightly to relieve residual pressure. Catch all fluid in a container.
- Before using system, check that all connections are tight and all lines are undamaged.
- Fluid leaks can be hard to detect. Use a piece of cardboard or wood, rather than hands, to search for leaks.
- Wear protective clothing, including gloves and eye protection.
- If you are injured, seek immediate medical attention from a doctor familiar with this type of injury.

## Check Condition of Backfill Blade

Check condition of backfill blade every 10 hours. Reverse blade to access new cutting edge or replace as needed.

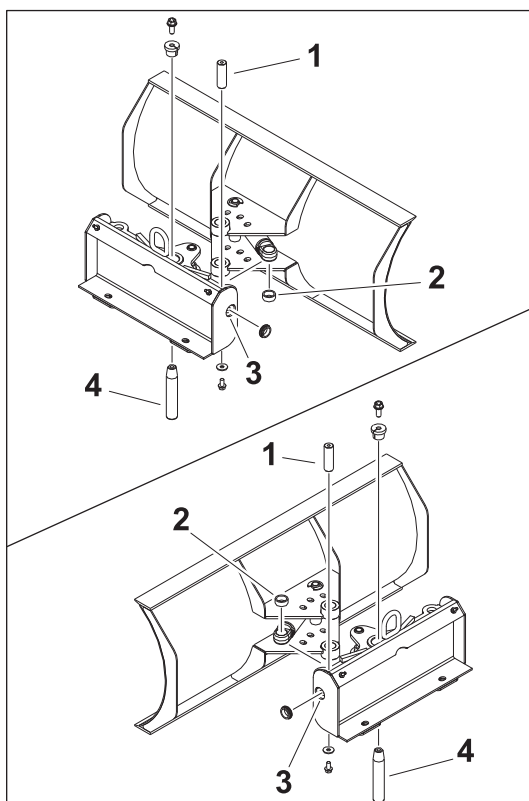
### To reverse with hydraulic swing

1. Move blade to center position and install manual swing pin (5).
2. Remove hose clamps (6) and cut zipties.



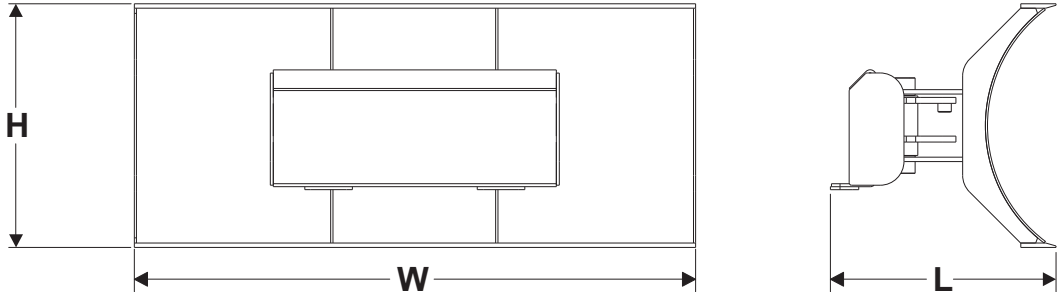
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3. Remove cylinder pin (1) and pivot cylinder to access connectors.
4. Mark hoses for proper reinstallation.
5. Disconnect hydraulic hoses and pull through holes in receiver plate (3).
6. Remove tapered pin (4) and manual swing pin and flip blade over.
7. Install tapered pin.
8. Push blade to center position and install manual swing pin.
9. Route hydraulic hoses through opposite holes and attach to connectors.
10. Install cylinder pin in hole on other side of attachment. Be sure to install spacer (2).
11. Remove manual swing pin (5), start engine, and slowly verify swing operation.
12. Lower blade and turn off engine.
13. Install hose clamps (6) and zipties as shown above.



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**Specifications**



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General		U.S.	Metric
H	Height	20.8 in	528 mm
L	Length	19 in	483 mm
W	Width	48 in	1.2 m
Weight			
	with hydraulic swing	195 lb	88 kg
	with manual swing	180 lb	82 kg

Specifications are called out according to SAE recommended procedures. Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that described.



# Support

## Procedure

Notify your dealer immediately of any malfunction or failure of Ditch Witch equipment.

Always give model, serial number, and approximate date of your equipment purchase. This information should be recorded and placed on file by the owner at the time of purchase.

Return damaged parts to dealer for inspection and warranty consideration if in warranty time frame.

Order genuine Ditch Witch replacement or repair parts from your authorized Ditch Witch dealer. Use of another manufacturer's parts may void warranty consideration.

## Resources

### Publications

Contact your Ditch Witch dealer for publications and videos covering safety, operation, service, and repair of your equipment.

### Ditch Witch Training

For information about on-site, individualized training, contact your Ditch Witch dealer.



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# Warranty

## Ditch Witch Equipment and Parts Limited Warranty Policy

Subject to the limitations and exclusions herein, free replacement parts will be provided at any authorized Ditch Witch dealership for any Ditch Witch equipment or parts manufactured by The Charles Machine Works, Inc. (CMW) that fail due to a defect in material or workmanship within one (1) year of first commercial use (Exception: 2 years for all SK500 attachments). Free labor will be provided at any authorized Ditch Witch dealership for installation of parts under this warranty during the first year following initial commercial use of the serial-numbered Ditch Witch equipment on which it is installed.

### Exclusions from Product Warranty

- Wear-related failure of parts subject to ground contact including, but not limited to, digging teeth, digging chains, sprockets, backhoe buckets, plow blades, drill pipe, drill bits, backreamers, and swivels.
- All incidental or consequential damages.
- All defects, damages, or injuries caused by misuse, abuse, improper installation, alteration, neglect, or uses other than those for which products were intended.
- All defects, damages, or injuries caused by improper training, operation, or servicing of products in a manner inconsistent with manufacturer's recommendations.
- All engines and engine accessories (these are covered by original manufacturer's warranty).
- Tires, belts, and other parts which may be subject to another manufacturer's warranty (such warranty will be available to purchaser).
- All implied warranties not expressly stated herein, including any warranty of fitness for a particular purpose and merchantability.

IF THE PRODUCTS ARE PURCHASED FOR COMMERCIAL PURPOSES AS DEFINED BY THE UNIFORM COMMERCIAL CODE, THEN THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF AND THERE ARE NO IMPLIED WARRANTIES OF ANY KIND WHICH EXTEND TO A COMMERCIAL BUYER. ALL OTHER PROVISIONS OF THIS LIMITED WARRANTY APPLY INCLUDING THE DUTIES IMPOSED.

Ditch Witch products have been tested to deliver acceptable performance in most conditions. This does not imply they will deliver acceptable performance in all conditions. Therefore, to assure suitability, products should be operated under anticipated working conditions prior to purchase.

Defects will be determined by an inspection within thirty (30) days of the date of failure of the product or part by CMW or its authorized dealer. CMW will provide the location of its inspection facilities or its nearest authorized dealer upon inquiry. CMW reserves the right to supply remanufactured replacement parts under this warranty as it deems appropriate.

Extended warranties are available upon request from your local Ditch Witch dealer or CMW.

Some states do not allow exclusion or limitation of incidental or consequential damages, so above limitation of exclusion may not apply. Further, some states do not allow exclusion of or limitation of how long an implied warranty lasts, so the above limitation may not apply. This limited warranty gives product owner specific legal rights and the product owner may also have other rights which vary from state to state.

For information regarding this limited warranty, contact CMW's Product Support department, P.O. Box 66, Perry, OK 73077-0066, or contact your local Ditch Witch dealer.

First version: 1/91; Latest version: 1/03

**A Note To  
Ditch Witch  
Equipment Owners:**

If your equipment was purchased through a Ditch Witch dealer, there is no need to read further.

However, if you purchased from any other source, please fill out the form on the reverse side and return it to us.

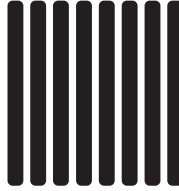
This will enable you to receive updates on this equipment as well as information on new products of interest.

Thanks for using Ditch Witch equipment.

(Please Fold Along This Line And Seal At Bottom With Tape)



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 23 PERRY OKLAHOMA

POSTAGE WILL BE PAID BY

**The Charles Machine Works, Inc.  
P.O. Box 66  
Perry, Oklahoma 73077-9989**



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**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 23 PERRY OKLAHOMA

POSTAGE WILL BE PAID BY

**The Charles Machine Works, Inc.  
P.O. Box 66  
Perry, Oklahoma 73077-9989**



# Ditch Witch® Registration Card

Please Type or Print All Information

---

Purchaser's Company Name

---

Attention

---

Street Address or P.O. Box

---

City County

---

State Zip Nation

---

(      )

Phone Number With Area Code

---

Model Serial Number

---

Attachments/Accessories Serial Numbers

---

Attachments/Accessories Serial Numbers

---

Attachments/Accessories Serial Numbers

---

Name of Ditch Witch Dealership

---

Your Signature

# Ditch Witch® Registration Card

Please Type or Print All Information

---

Purchaser's Company Name

---

Attention

---

Street Address or P.O. Box

---

City County

---

State Zip Nation

---

(      )

Phone Number With Area Code

---

Model Serial Number

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Attachments/Accessories Serial Numbers

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Attachments/Accessories Serial Numbers

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Attachments/Accessories Serial Numbers

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Name of Ditch Witch Dealership

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Your Signature