

## Foreword

This guide is an important part of your attachment. It provides safety, operation and maintenance information to help you use and maintain your Ditch Witch equipment.

Read this manual and the unit operator's manual before using your attachment. 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.

### SK5PAL/SK5PAH Attachment Operator's Manual

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 Part number 054-104

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Ditch Witch, CMW, AutoCrowd, Modularmatic,  
 Jet Trac, Roto Witch, Subsite, Fluid Miser,  
 Sidekick, Perma-Soil, Power Pipe,

Super Witch, Super Witch II, Pierce Arrow, The Underground, and  
 The Underground Authority Worldwide are registered trademarks of  
 The Charles Machine Works, Inc.

## Safety

- Read and follow all safety precautions.
- Contact One-Call (888-258-0808) or your local utility company. Have all underground lines and cable located and marked before operating equipment. Know appropriate actions to take in case you damage a utility. If you damage a utility, contact utility company.
- Mark jobsite clearly and keep spectators away.
- Wear personal protective equipment. Do not wear jewelry or loose clothing that can catch on controls.
- Use equipment carefully. Stop operation and investigate anything that does not look or feel right.
- Contact your Ditch Witch dealer if you have any question about operation, maintenance, or equipment use.



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



**WARNING** Improper control function could cause death or serious injury. If control does not work as described in instructions, stop machine and have it serviced.



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



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



**DANGER** Electrical shock. Contacting electrical lines will cause death or serious injury. Know location of lines and stay away.



**WARNING** Crushing weight could cause death or serious injury. Use proper procedures and equipment or stay away.



**DANGER** Turning shaft will kill you or cut off arm or leg.



**CAUTION** Flying objects may cause injury. Wear hard hat and safety glasses.



**CAUTION** Exposure to high noise levels may cause hearing loss. Wear hearing protection.



**WARNING** Pressurized fluid or air could pierce skin and cause injury or death. Stay away.



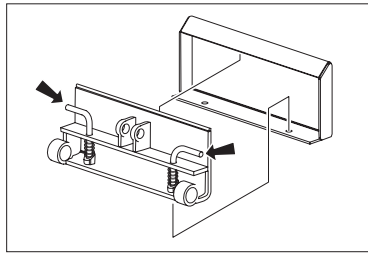
**CAUTION** Hot parts may cause burns. Do not touch until cool.

## Connect Attachment

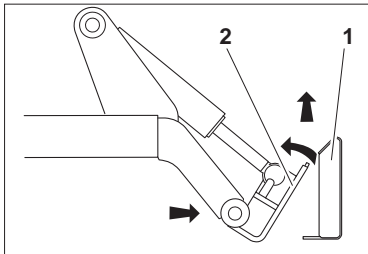
**IMPORTANT:** Before connecting attachment to unit, ensure that mount and receiver plates are free of dirt and debris.

### Attachment

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

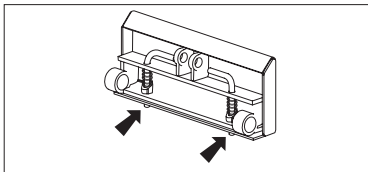


5. Position mount plate in the upper lip of the receiver plate (1) on attachment.
6. Raise lift arms while tilting back mount plate.



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

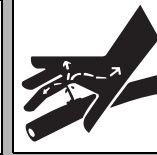
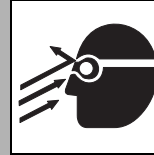
7. Turn ignition switch off and remove key.
8. Rotate lock pin handles toward center of mount plate to secure attachment to lift plate.



**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

Pressurized fluid or air 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.



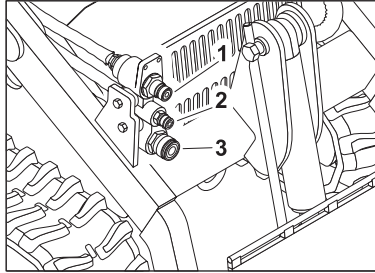
### CAUTION

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.

**IMPORTANT:** Unit shown is the Ditch Witch SK500. Hydraulic couplers may be oriented differently on other units.

1. Remove dirt and debris from hydraulic couplers.
2. Connect male coupler on attachment to female coupler (3) on unit.
3. Connect female coupler on attachment to male coupler (1) on unit.
4. Connect female coupler on case drain hose to case drain coupler (2) on unit, if attachment requires it.



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Ensure that connections are secure by pulling on hoses.

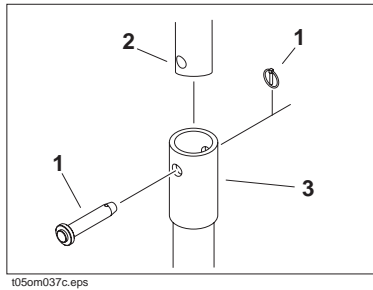
## Function Overview

Attachment Function	
<p>c00ic015c.eps</p>	To raise auger, raise lift (loader) arms.
<p>c00ic016c.eps</p>	To lower auger, lower lift (loader) arms.
<p>c00ic018c.eps</p>	To tilt auger up, tilt mount plate up.
<p>c00ic017c.eps</p>	To tilt auger down, tilt mount plate down.
<p>c00ic021c.eps</p>	To drive auger into ground, engage attachment drive (auxiliary) control in forward.
<p>c00ic022c.eps</p>	To reverse auger, engage attachment drive (auxiliary) control in reverse.  <b>IMPORTANT:</b> Rotate auger in reverse only if auger becomes stuck.

## Operate Attachment

### Attach Auger

1. Align hole on auger shaft (3) with hole on auger driver (2).
2. Slide auger shaft over auger driver.
3. Secure with clevis pin set (1).



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**IMPORTANT:** Use only clevis pin set (p/n 109-943) to secure auger to driver.

### Operating Procedure

1. Use track drive controls to move unit to location for drilling.
2. Use lift (loader) arm control to lower auger to ground.
3. Use attachment drive (auxiliary) control to rotate auger clockwise.
4. Use lift (loader) arm control to lower auger into ground.

**IMPORTANT:**

- Lower auger slowly to allow bits to cut hole.
- Use track drive controls to move unit forward as needed to keep auger vertical.

5. After hole is complete, continue to rotate auger clockwise and use lift (loader) arm control to raise auger out of hole.
6. Stop rotating auger when end of auger clears hole.
7. Use track drive controls to move unit away from hole.

### Operating Tips

- To remove spoils from a deep hole, periodically stop rotation and use lift (loader) arm control to raise auger out of hole. Once entire auger is out of the hole, rotate auger to remove loose soil.
- Clear area of branches and rocks before working.
- In soft soil, increase drilling speed. In harder soil, decrease drilling speed.
- Keep bystanders clear of work area.
- Do not walk or work under raised attachments unless lift (loader) arms are securely supported.

### Storage

Store unit with gearbox upright in a clean, dry place. If gearbox is stored on its side, oil will drain out.

Cover attachment to keep it clean.

Ensure drive unit motor and hoses and planetary gearbox is full of oil before storage.

## Service

### 10-Hour

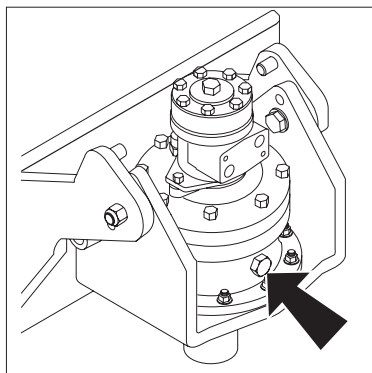
#### Check Hydraulic Hoses and Fittings

Check hydraulic hoses for leaks every 10 hours.

### 25-Hour

#### Check Gearbox Oil Level

Check gearbox oil level every 25 hours and add MPL as needed.



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#### To check

1. Ensure gearbox is upright.
2. Remove oil plug (shown).
3. If oil comes out, tighten oil plug.
4. If oil does not come out, change gearbox oil.

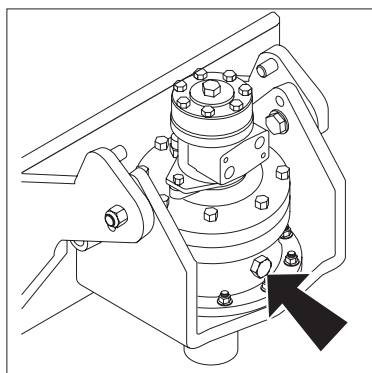
### 100-Hour

#### Change Gearbox Oil - (Initial Service)

Change gearbox oil after 100 hours and every time oil level is low. Change oil when gearbox is warm.

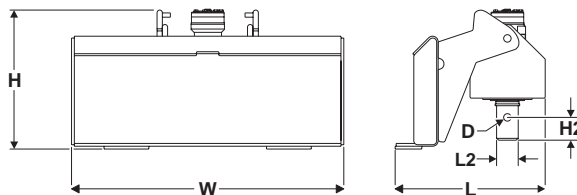
#### To change

1. Rotate auger driver until oil plug is on bottom.
2. Place pan under drain and remove oil plug.
3. Drain oil.
4. Rotate auger driver until oil plug is on top.
5. Add 0.16 gal (0.6 L) of MPL at oil plug.
6. Tighten oil plug.



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## Specifications



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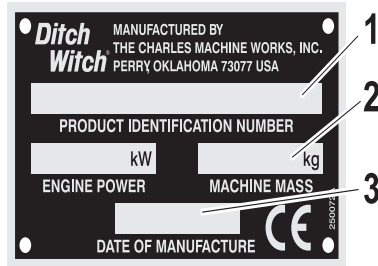
Dimensions	U.S.	Metric
H, height	15.9 in	404 mm
W, width	24.3 in	617 mm
Weight	154 lb	70 kg
D, pin hole diameter	7/8 in	22 mm
L2, shaft diameter	2-9/16 in	65 mm
H2, bottom of shaft to pin hole centerline	2.8 in	71 mm

SK5PAL Performance	U.S.	Metric
Torque @ 2100 psi (145 bar)	1168 ft•lb	1584 N•m
Torque @ 2500 psi (172 bar)	1390 ft•lb	1885 N•m
Torque @ 3000 psi (209 bar)	1669 ft•lb	2263 N•m
Speed @ 8 gpm (30 L/min)	42 rpm	42 rpm
Speed @ 10 gpm (38 L/min)	52 rpm	52 rpm
Speed @ 12 gpm (45 L/min)	63 rpm	63 rpm

SK5PAH Performance	U.S.	Metric
Torque @ 2100 psi (145 bar)	929 ft•lb	1260 N•m
Torque @ 2500 psi (172 bar)	1106 ft•lb	1500 N•m
Torque @ 3000 psi (209 bar)	1327 ft•lb	1799 N•m
Speed @ 8 gpm (30 L/min)	52 rpm	52 rpm
Speed @ 10 gpm (38 L/min)	66 rpm	66 rpm
Speed @ 12 gpm (45 L/min)	79 rpm	79 rpm

## Support

1. Serial number
2. Attachment weight
3. Date of manufacture



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## 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.

## Warranty

### Ditch Witch Equipment and Replacement Parts Limited Warranty Policy

Subject to the limitation 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 SK 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. The customer is responsible for transporting their equipment to an authorized Ditch Witch dealership for all warranty work.

### Exclusions from Product Warranty

- 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: 7/05