# Foreword

Read and understand this manual and the machine 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. Visit our website at 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.

**MT164 Attachment**
**Operator's Manual**

**Issue number 3.0/OM-1/2025**
**Part number ID0735902**

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**by The Charles Machine Works, Inc.**

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## Equipment Modification

This equipment was designed and built in accordance with applicable standards and regulations. Modification of equipment could mean that it will no longer meet regulations and may not function properly or in accordance with the operating instructions. Modification of equipment should only be made by competent personnel possessing knowledge of applicable standards, regulations, equipment design functionality/ requirements and any required specialized testing.

## Intended Use

The MT164 attachment is designed for digging trenches up to 2 in (50.8 mm) wide and up to 16 in (406 mm) deep.

# Safety

- Read and follow all safety precautions.
- Mark proposed path with white paint and have underground utilities located before working. In the US or Canada, call 811 (US) or 888-258-0808 (US and Canada). Also contact any local utilities that do not participate in the One-Call service. In countries that do not have a One-Call service, contact all local utility companies to have underground utilities located.
- Mark jobsite clearly and keep bystanders away.
- Wear personal protective equipment including hard hat, safety eye wear, foot protection, hearing protection, and gloves (except when near rotating equipment. Have other personal protective equipment, such as insulated boots and gloves, breathing protection, and face shield, etc. available for use depending on jobsite hazards or requirements.
- Remove jewelry.
- Wear close-fitting, high-visibility clothing.
- 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.
- Safety videos are available at www.ditchwitch.com and from Ditch Witch dealers.

## Safety Alert Classifications

These classifications and the icons 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.

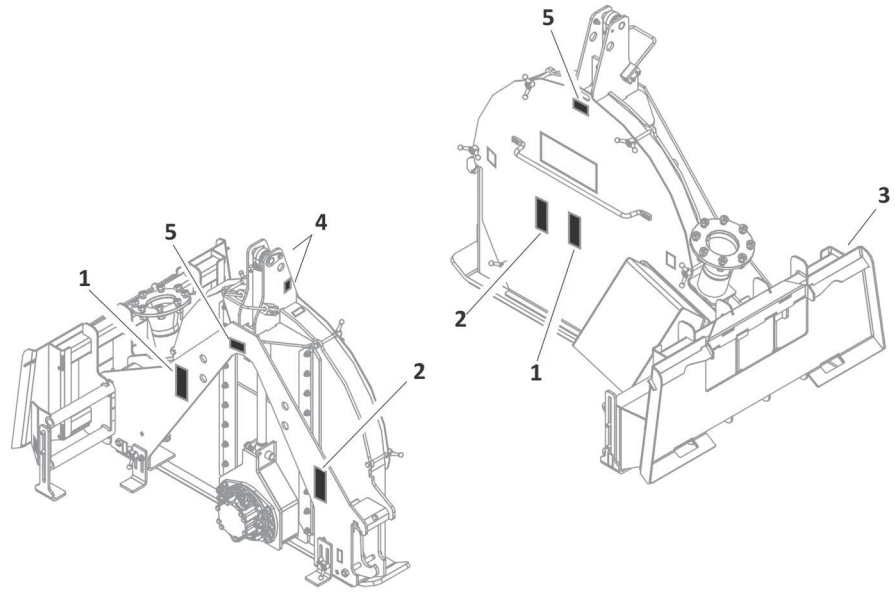
**DANGER** indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

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

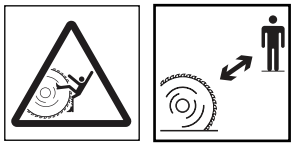
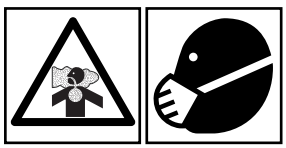
**CAUTION** indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

***NOTICE*** indicates information considered important, but not hazard-related (e.g., messages relating to property damage). **IMPORTANT** can help you do a better job or make your job easier in some way.

## Safety Alerts




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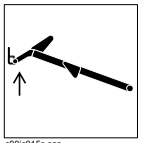
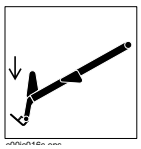
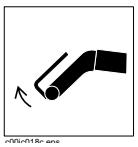
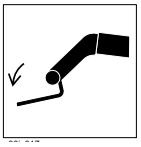
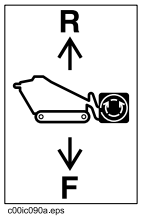
| | | |
|---|---|---|
| 1 |  | **WARNING** Thrown objects. Impact can cause injury.Wear hard hat and safety glasses. |
| 2 |  | **DANGER** Moving digging teeth. Contact will cause death or serious injury. Stay at least 6' (2m) away. |
| 3 |  | Tiedown location. See Transport section for more information. |
| 4 |  | Lift location. See Transport section for more information. |
| 5 |  | **WARNING** Silica dust. Exposure can cause lung disease. Use breathing protection. |

# Transport

## Lift

Use a hoist capable of supporting the attachment's size and weight. Measure and weigh attachment before lifting.

# Controls

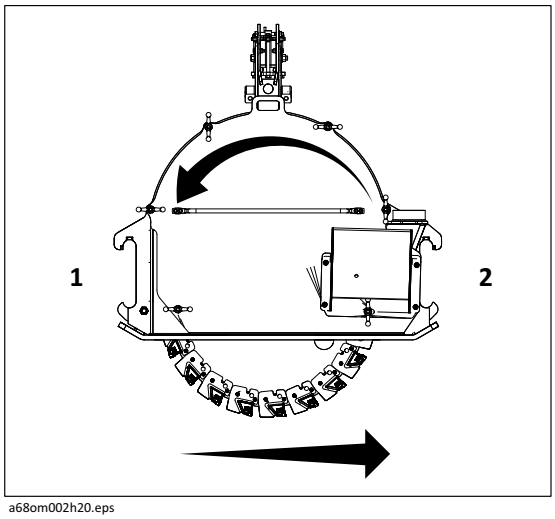
| Attachment Function | |
|---|---|
|  | To raise microtrencher, raise lift (loader) arms. |
|  | To lower microtrencher, lower lift (loader) arms. |
|  | To curl/tilt microtrencher up, tilt mount plate up. |
|  | To curl/tilt microtrencher down, tilt mount plate down. |
|  c00ic090a.eps | To start forward rotation, engage high/low attachment drive (auxiliary) in forward (F).<br>To reverse rotation, engage in reverse (R).<br>To raise blade, engage medium attachment drive (auxiliary) in forward (F).<br>To lower, engage in reverse (R). |

# Connect Attachment

## Set Up Microtrencher

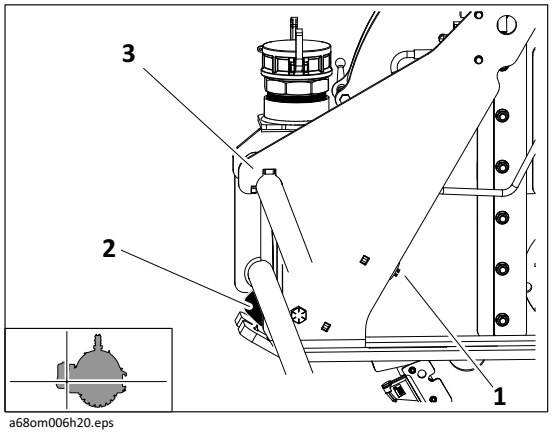
Microtrencher can be set up to be pulled or pushed. The blade rotation direction (curved arrow) is up toward the vac hose port, regardless of attachment travel direction (lower arrow).

- Attached at position 1: SK machine pushes the microtrencher (forward SK travel).
- Attached at position 2: SK machine pulls the microtrencher (rearward SK travel).



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1. Position attachment frame on correct side of microtrencher for desired pull/push mode of operation and in desired offset position.
2. Loosen latch bolt (1) on saw and lower bottom latch jaw (2).Lift frame up and into latching position with frame engaged in top (3) and bottom latch jaws.
3. Raise lower latch jaw up to attach frame to microtrencher.
4. Tighten latch bolt.

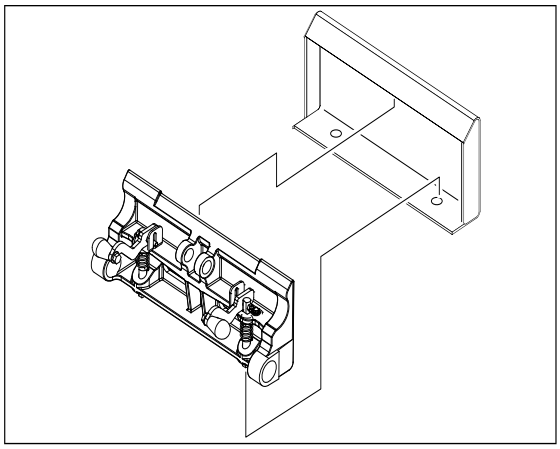


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## Attachment

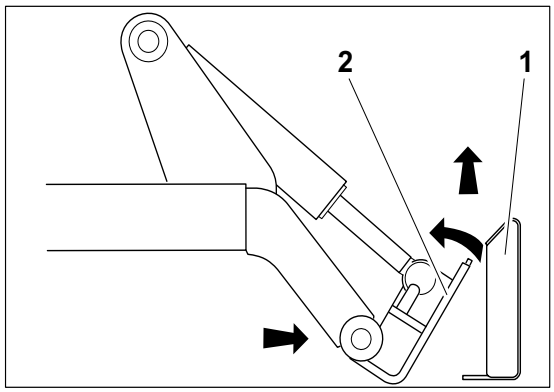
**IMPORTANT:** Before connecting attachment to machine, ensure that mount and receiver plates are free of dirt and debris and that latch handles are down.

1. Position attachment on level surface with enough space behind it to accommodate machine.



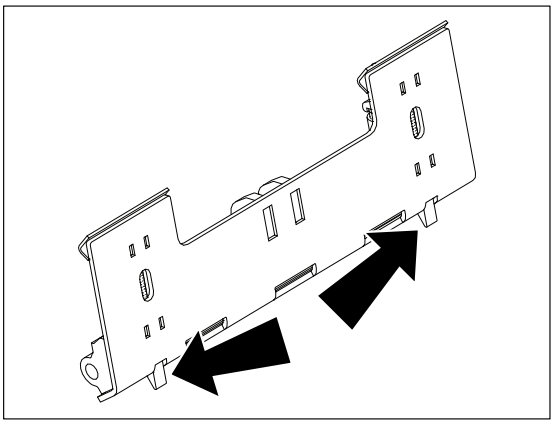
2. Start engine.
3. Ensure attachment pins are disengaged.
4. Tilt attachment plate (2) forward.
5. Position attachment plate in the upper lip of receiver plate (1) on attachment.
6. Raise lift arms while tilting back attachment plate and engage pins.

**IMPORTANT:** If necessary, drive forward while tilting back attachment plate to engage pins.



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7. Ensure lock pins (shown) are engaged by rotating attachment down.


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## Hydraulic Hoses



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

**To help avoid injury:**

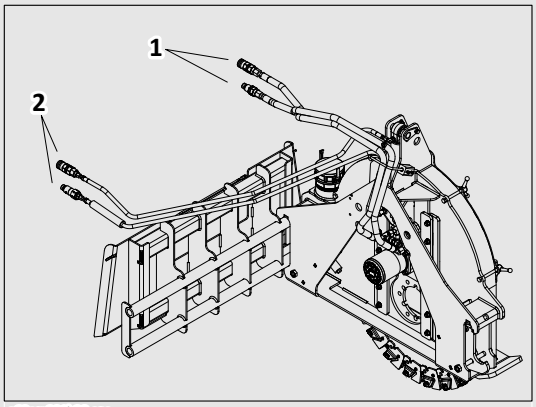
- Use a piece of cardboard or wood, rather than hands, to search for leaks.
- Wear protective clothing, including gloves and eye protection.
- Before disconnecting a hydraulic line, turn engine off and operate all controls to relieve pressure.
- Lower, block, or support any raised component with a hoist.
- 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.
- 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 or wear gloves.

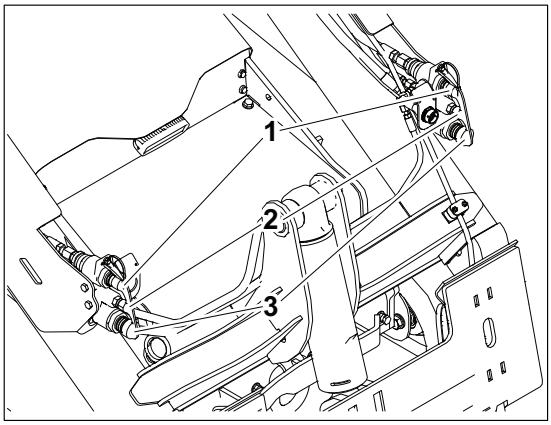
**To help avoid injury:** Wear gloves when connecting and disconnecting hydraulic hoses and wait until machine has cooled before touching hydraulic components.

**IMPORTANT:** Connect microtrencher lift hoses (2) on the right ports (as seen when standing on platform) and rotation hoses (1) to left ports, as shown.



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1. Remove dirt and debris from hydraulic couplers.
2. Connect male couplers on attachment to female couplers (3) on machine.
3. Connect female couplers on attachment to male couplers (1) on machine.
4. Ensure that connections are secure by pulling on hoses.



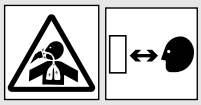
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# Operate Attachment

## Prepare Spoils Removal

The MT164 is designed to operate optimally with an 800 cfm or larger vacuum excavator to remove spoils. If vacuum excavator is not available, set up machine to operate without it and use other dust control methods. See vacuum excavator operator's manual for operating instructions.

**With Vacuum Excavator**



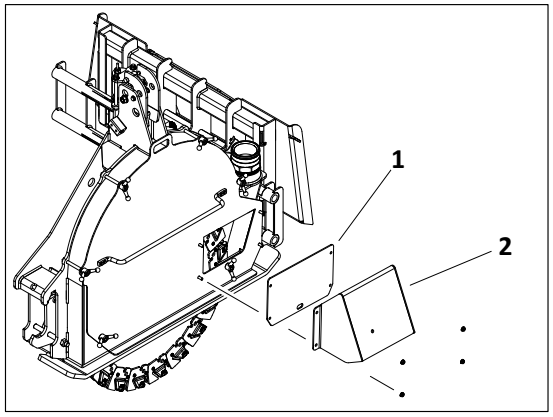
**DANGER** Suction. Suffocation will cause death. Keep hose end away from face.

1. Turn off vacuum excavator and ensure microtrencher blade is not turning.
2. Connect vacuum hose on excavator to vacuum hose port on microtrencher.
3. Operate vacuum excavator at full speed for best results.

**IMPORTANT:** Ensure vacuum hoses are clear, vacuum filters are clean, and canister is empty prior to operation.

**Without Vacuum Excavator**

1. Cap vacuum hose on microtrencher.
2. Remove chute plate (1).
3. Install spoils chute (2).



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## Operate Microtrencher

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



**DANGER** Moving digging teeth. Contact will cause death or serious injury. Stay at least 6' (2m) away.

**To help avoid injury:**

- Allow 3' (1m) between digging teeth and obstacle.
- Keep everyone at least 6' (2m) from machine, attachments, and their range of movement.



**WARNING** Thrown objects. Impact can cause injury.Wear hard hat and safety glasses.

1. Start SK machine.
2. Engage attachment drive (auxiliary) in forward. BLADE WILL TURN.
3. Increase engine speed to full throttle.
4. Lower microtrencher as blade enters ground. Use tilt and curl controls to position attachment base flush against ground.
5. Slowly lower blade to digging depth.
6. Move track drive controls to begin microtrenching. MACHINE WILL MOVE.
7. Steer machine as needed.
8. When trench is complete, move track drive controls to neutral.
9. Move throttle to half open.
10. Raise blade completely.
11. Stop blade rotation.
12. Raise microtrencher.
13. Drive machine away from trench.
14. Stop engine.

# Storage

Remove dirt and grime from attachment with mild detergent and grease all fittings. Couple hydraulic hoses to prevent contamination.

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

# Maintenance

**To help avoid injury:** Unless otherwise noted, all maintenance should be performed with the engine off.

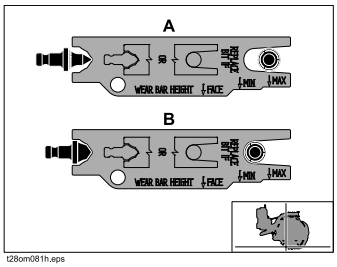
## 100 ft (30.5 m)

### Rotating Conical Bits

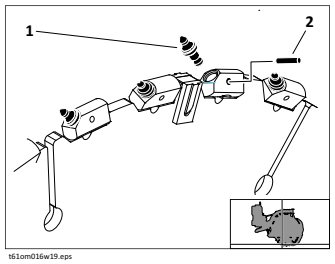
Check bits for wear every 100ft (30.5m). Replace worn bits as needed.

1. Check bit condition using gauge (shown, 301-1507).

   A: Bits OK
   B: Replace bits

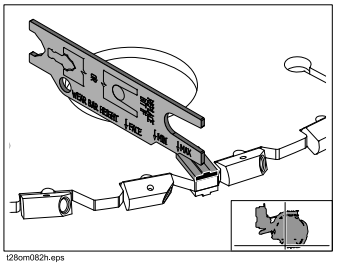



2. As needed, drive out roll pin (2).
3. Remove bit (1).
4. Install new bit into holder.
5. Drive in new roll pin.




### Wear Bars/Hard-Surface Material

Check thickness of wear bars and hard-surface material with gauge (shown, 301-1507) every 100ft (30.5m). Replace material as needed.



## 10-Hour



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

**To help avoid injury:**

- Use a piece of cardboard or wood, rather than hands, to search for leaks.
- Wear protective clothing, including gloves and eye protection.
- 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.
- 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 or wear gloves.

**To help avoid injury:** Wear gloves when connecting and disconnecting hydraulic hoses and wait until machine has cooled before touching hydraulic components.

### Check Hydraulic Hoses and Fittings

Check hydraulic hoses for leaks every 10 hours.

### Check Hardware

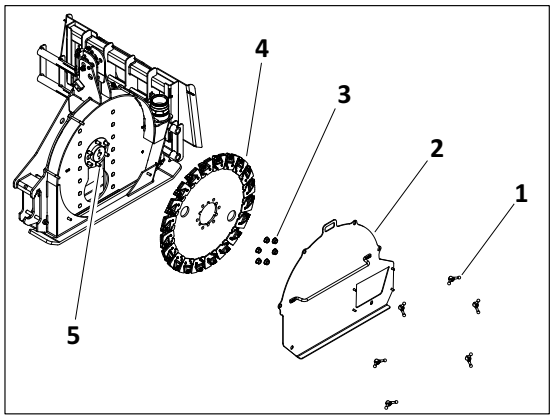
Check all nuts, bolts, and fasteners every 10 hours. Tighten loose hardware.

### Check Vacuum Hoses

Check inside of hoses for caked spoils every 10 hours. Clean as needed.

## As Needed

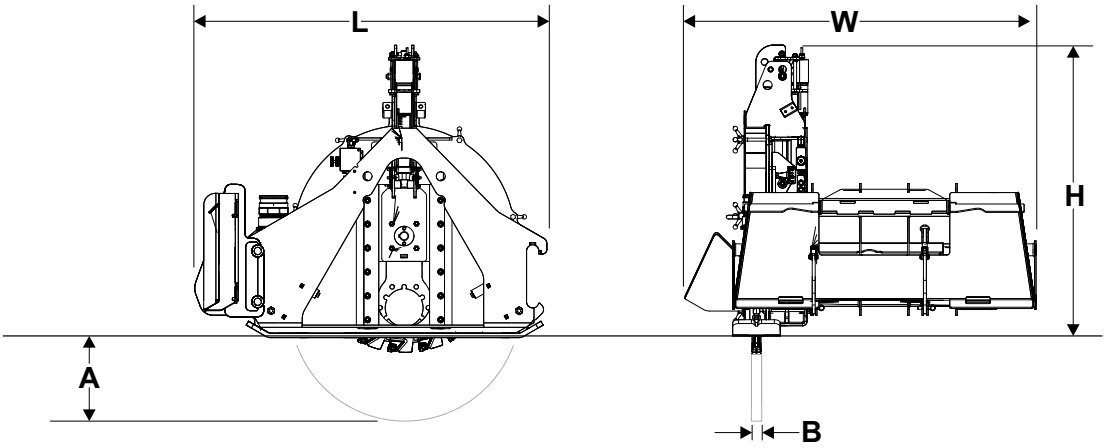
### Change Blade



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1. Start SK machine and position microtrencher slightly above ground.
2. Shut down SK machine.
3. Remove 6 wingnuts (1) and cover (2).
4. Remove 6 lug nuts (3).
5. Remove blade (4).
6. Clean threads (5).
7. Install new blade (note direction of rotation).
8. Apply Loctite 242 or equivalent to 6 lug nuts and install with flat side toward blade.
9. Tighten to 300ft-lb (407N•m).
10. Install cover and secure with wingnuts.

# Specifications



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| Dimensions | | US | Metric |
|---|---|---|---|
| A | Trench depth | 0-16 in | 0-406 mm |
| B | Trench width | 0.5-2 in | 13-50.8 mm |
| H | Height | 57.5 in | 1.46 m |
| L | Length | 69 in | 1.75 m |
| W | Width | 51.8 in | 1.3 m |
| Attachment mass, no blade | | 1230 lb | 558 kg |
| **Operational** | | **US** | **Metric** |
| Blade diameter | | 43 in | 1.09 m |
| Blade speed | | 178 rpm | 178 rpm |

## EU Declaration of Conformity

The Charles Machine Works Inc., PO Box 66, 1959 West Fir Avenue, Perry, Oklahoma, USA, declares that the following unit(s):

| Model | Serial Number | Description |
|---|---|---|
| XXXXX | XXXXXXXXXXXXXXXX | Interchangeable Attachment |

Conform(s) to the following directives:

2006/42/EC (Machinery Directive)

Each model listed has been evaluated with the following standards and/or other normative documents:

EN ISO 12100:2010
EN 474-1:2022

The Technical Construction File is maintained at the manufacturer's location. The Authorized Representative designated below is authorized to make the technical information available to the competent authorities of the Member States in response to a duly reasoned request.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant Union harmonization legislation.

Certified:

Engineering Director
1959 West Fir Avenue
Perry, OK 73077, USA

Date _____

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro Europe NV
Nijverheidsstraat 5
2260 Oevel
Belgium

## UK Declaration of Conformity

The Charles Machine Works Inc., PO Box 66, 1959 West Fir Avenue, Perry, Oklahoma, USA, declares that the following unit(s):

| Model | Serial Number | Description |
|---|---|---|
| XXXXX | XXXXXXXXXXXXXXXX | Interchangeable Attachment |

Conform(s) to the following UK national laws:

S.I. 2008 No.1597 (Machinery Safety)

Each model listed has been evaluated with the following standards and/or other normative documents:

EN ISO 12100:2010
EN 474-1:2022

The Technical Construction File is maintained at the manufacturer's location. The Authorized Representative designated below is authorized to make the technical information available to the competent authorities of the Member States in response to a duly reasoned request.

This declaration has been issued under the sole responsibility of the manufacturer.
The object of the declaration is in conformity with relevant UK legislation.

Certified:

Engineering Director
1959 West Fir Avenue
Perry, OK 73077, USA

Date _____

Authorized Representative:

Marcel Dutrieux
Manager European Product Integrity
Toro U.K. Limited
Spellbrook Lane West
Bishop's Stortford
CM23 4BU
United Kingdom

# 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.

# 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 Ditch Witch factory that fail due to a defect in material or workmanship within one (1)year of first commercial use. 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 (including, but not limited to, rollover), 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 Ditch Witch Product Support (DWPS) or its authorized dealer. DWPS will provide the location of its inspection facilities or its nearest authorized dealer upon inquiry. DWPS reserves the right to supply remanufactured replacements parts under this warranty as it deems appropriate.

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

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 the DWPS department, P.O. Box 66, Perry, OK 73077-0066, or contact your local dealer.

First version: 1/91; Latest version: 7/19